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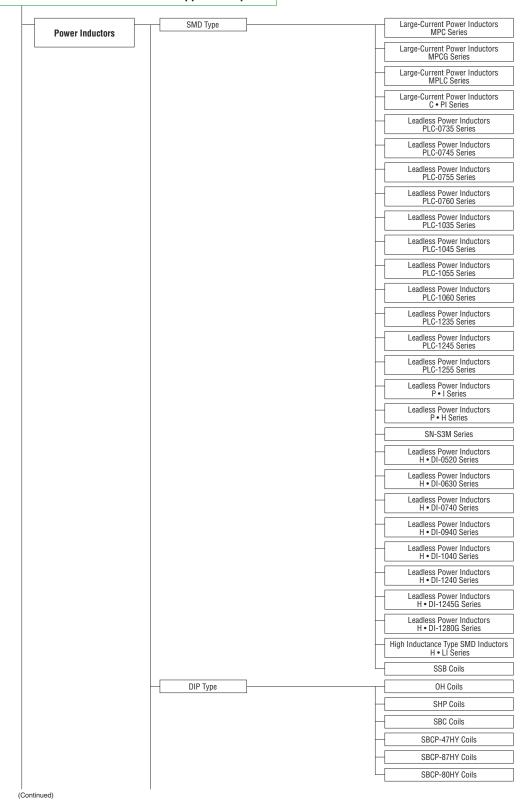


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Classification of NEC TOKIN's EMI suppression parts

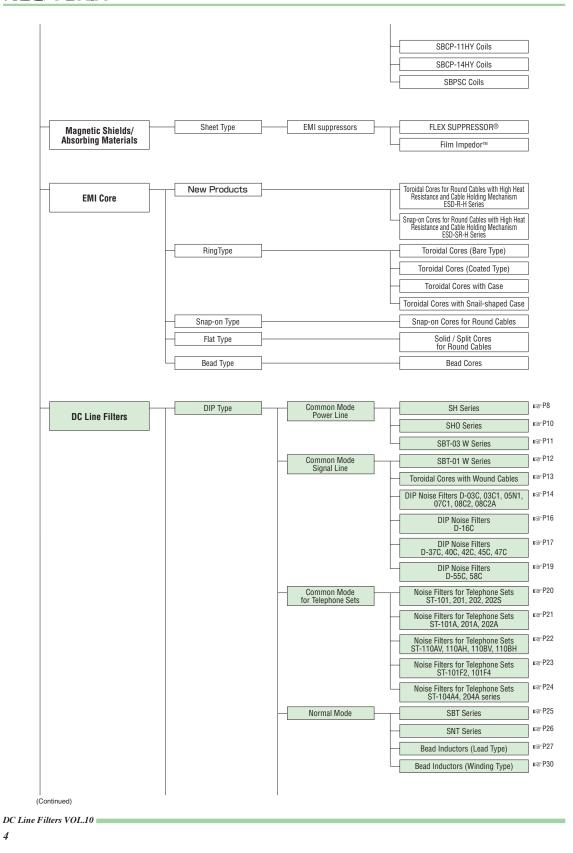




DC Line Filters VOL.10

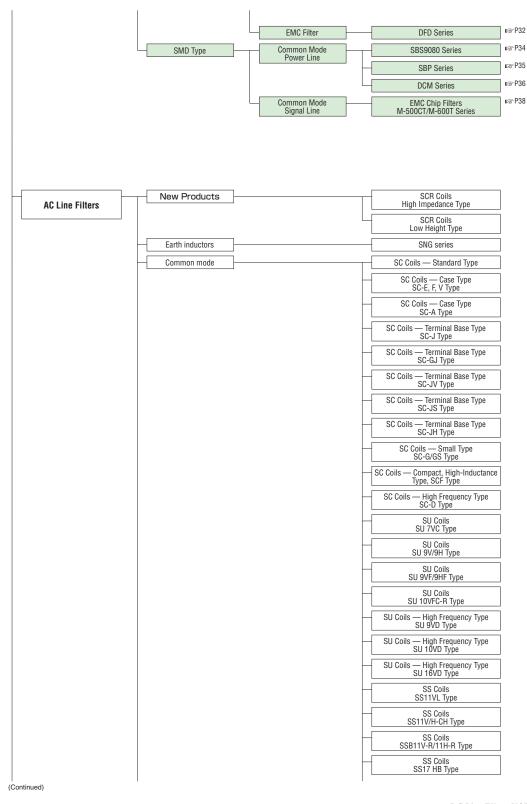


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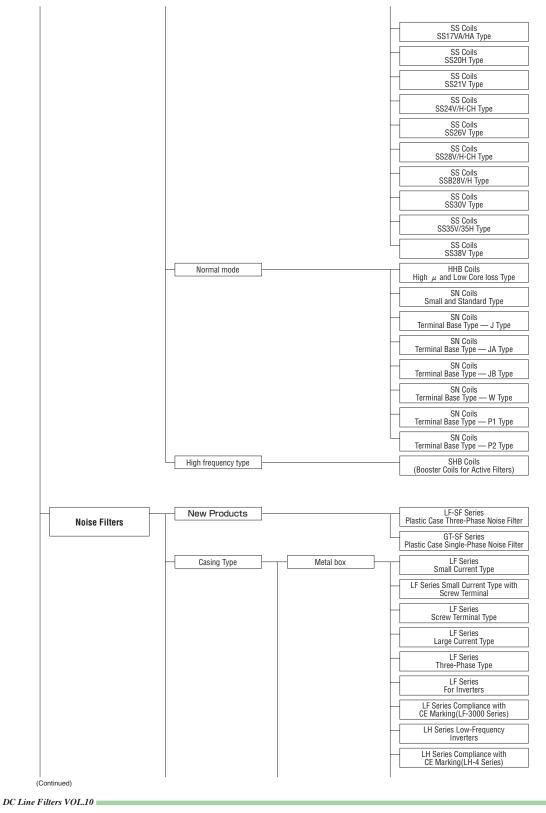
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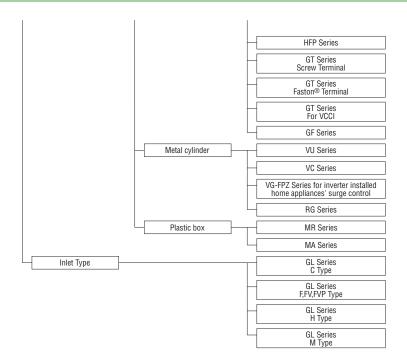


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NEC/TOKIN DIP Type

Common Mode Power Line

SH Series

[RoHS Compliant]



Mode	el	Rated voltage DC (V)	Rated current (A)	Inductance (µH) min.	DC resistance $(m\Omega/line)$ max.	Operating temperature range (°C)	Shape and dimensions
	SH-101	150	3.0	0.35	16	-25 to +80	
-	SH-102	150	3.0	1.5	26	-25 to +80	
	SH-201	150	3.0	0.5	16	-25 to +80	Fig. 1
-	SH-202	150	3.0	1.5	20	-25 to +80	
	SH-301	150	3.0	3.2	22	-25 to +80	
	SH-302	150	3.0	7.5	26	-25 to +80	
	SH-211	150	3.0	0.5	18	-25 to +80	
	SH-212	150	3.0	1.5	23	-25 to +80	Fig. 2
for 2 lines	SH-311	150	3.0	3.2	25	-25 to +80	
	SH-312	150	3.0	7.5	30	-25 to +80	
	SH-121	50	3.0	0.35	11	-25 to +80	
	SH-122	50	3.0	1.5	20	-25 to +80	Fig. 3
	SH-321	50	3.0	3.5	14	-25 to +80	
_	SH-322	50	3.0	7.5	20	-25 to +80	
	SH-132	50	2.4	2.6	51	-25 to +60	Fig. 4
_	SH-432	50	2.4	30.0	51	-25 to +60	
for 3 lines	SH-S132	50	1.0	1.7	81	-25 to +80	Fig. 5

DC Line Filters VOL.10

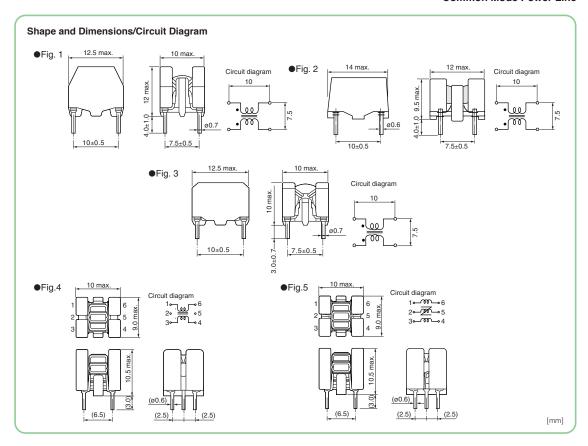
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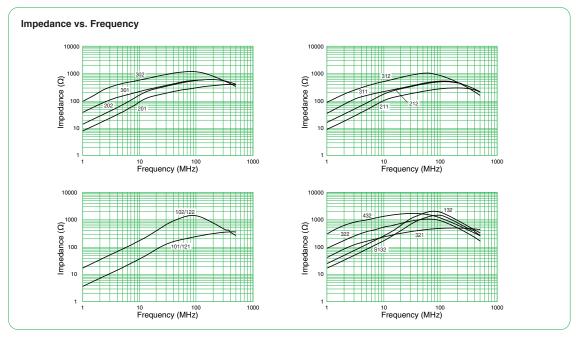


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DC Line Filters VOL.10



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NEC/TOKIO DIP Type

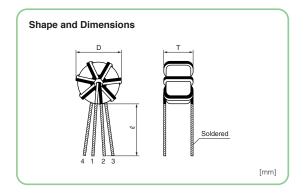
Common Mode Power Line

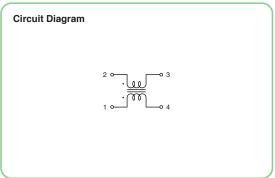
SHO Series

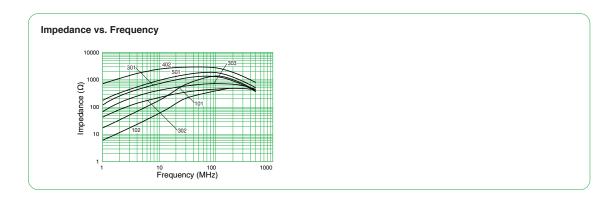
[RoHS Compliant]



Model	Rated voltage	Rated current	Inductance	DC resistance	Operating temperature range	[Dimensions(mm)			
Model	DC (V)	(A)	(μH) min.	(mΩ/line) max.	(°C)	D	T	l		
SHO-101	50	4.0	2.0	15.5	-25 to +70	11Max.	7.5Max.	10±3		
SHO-102	50	4.0	0.6	10.0	-25 to +70	11Max.	7.5Max.	10±3		
SHO-301	50	4.0	12.0	15.5	-25 to +70	11Max.	7.5Max.	10±3		
SHO-302	50	4.0	3.9	10.0	-25 to +70	11Max.	7.5Max.	10±3		
SHO-303	50	5.0	6.0	8.0	-25 to +75	11Max.	8Max.	10±3		
SHO-402	50	0.8	99.0	120.0	-25 to +80	7.5Max.	5Max.	4±2		
SHO-501	50	0.8	17.5	105.0	-25 to +80	6.2Max.	3.4Max.	4±2		







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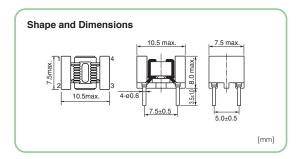
SBT-03W Series

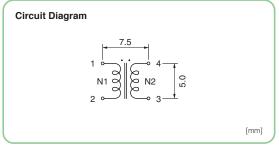
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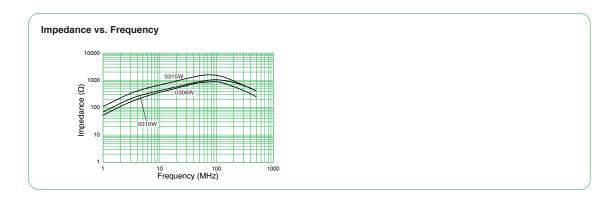


Model	Rated voltage DC (V)	Rated current (A)	Inductance (100kHz, 1mA) (µH) min.	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)	Wire size (mmø)	Packaging
SBT-0308W	50	3.0	6.75	20	-25 to +85	0.4	
SBT-0310W	50	2.5	7.7	30	-25 to +80	0.35	Bulk (100 pcs.)
SBT-0315W	50	2.0	11.9	45	-25 to +75	0.3	

• Withstanding voltage: 200VDC (one minute, between lines) • Insulation resistance: more than 10MΩ (100VDC, between lines)







DC Line Filters VOL.10



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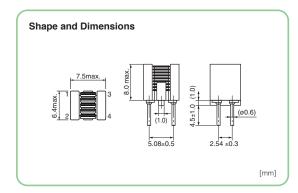
SBT-01W Series

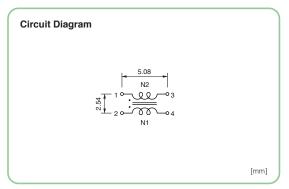
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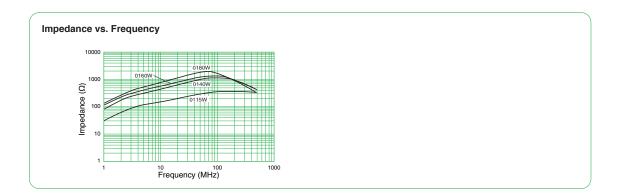


Model	Rated voltage DC (V)	Rated current (mA)	Inductance (1kHz, 70mA) (μΗ)	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)	Packaging
SBT-0115W	50	500	≧5	30	-25 to +70	
SBT-0140W	50	500	40±35%	40	-25 to +70	Bulk (100ppp)
SBT-0160W	50	500	60±35%	45	-25 to +70	Bulk (100pcs.)
SBT-0180W	50	500	80±35%	55	-25 to +70	

• Withstanding voltage: 200VDC (one minute, between lines) • Insulation resistance: more than $10M\Omega$ (100VDC, between lines)







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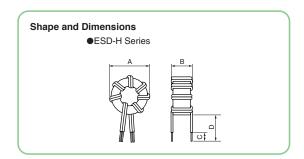
Toroidal Cores with Wound Cables

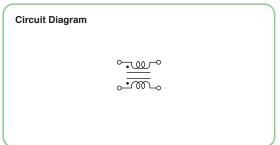
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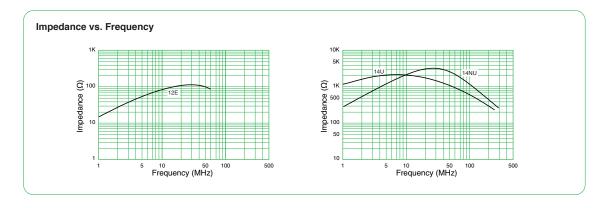


Model	Core	[)imensi	ons (mm)		No. of turns	s Wire	Winding status	Frequency range
Model	Cole	Α	В	С	D	INO. OI LUITIS	WIIG	willuling status	(MHz)
ESD-H-12E	ESD-R-12C	16	20	5	25	7	UL1007 AWG26 (ø0.4)	Bi-filar winding	Up to 300
ESD-H-14U	ESD-R-14A	17.5	7	5	15	10	UL1609 AWG26 (ø0.4)	Bi-filar winding	Up to 100
ESD-H-14NU	ESD-R-14C2	17.5	7	5	15	10	UL1609 AWG26 (ø0.4)	Bi-filar winding	Up to 300

• Recommended soldering conditions: 350±10°C, 2 to 3 sec. • Rated current:1A • Rated Voltage: 125V







DC Line Filters VOL.10



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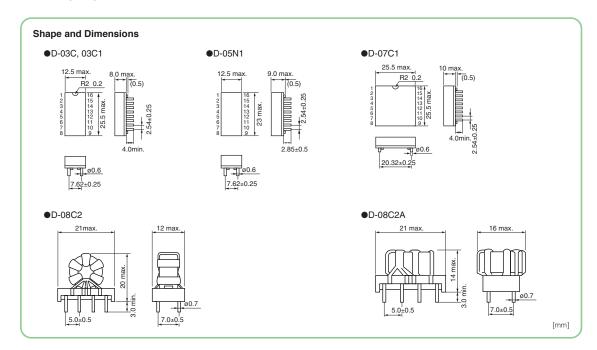
DIP Noise Filters D-03C, 03C1, 05N1, 07C1, 08C2, 08C2A

[RoHS Compliant]



Model	Circuit diagram		Number of terminals/Circuits	Rated voltage DC (V)	Rated current DC (mA/Line)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)
D-03C	1 16 2 15	4 cores	16P/2 circuits x 4	50	150	75	-20 to +70
D-03C1	D-03C1 7 10 10	4 00163	Common mode	30	100	150	-20 to +70
D-05N1	1 16 2 15 8 9	8 cores	16P/8 circuits Normal mode	50	100	10	-20 to +70
D-07C1	1 16 2 15 8 9	1 core	16P/8 circuits Common mode	50	300	100	-20 to +70
D-08C2	1 8 2 7 7 7 3 7 6 4 7 5	1 core	8P/4 circuits Common mode	50	2300	25	-20 to +70
D-08C2A	1 8 2 7 3 6 4 7 5	1 core	8P/4 circuits Common mode	50	500	70	-25 to +65

[•] Withstanding voltage: 200VDC (one minute, between lines) • Insulation resistance: more than $10M\Omega$ (100VDC, between lines)



DC Line Filters VOL.10

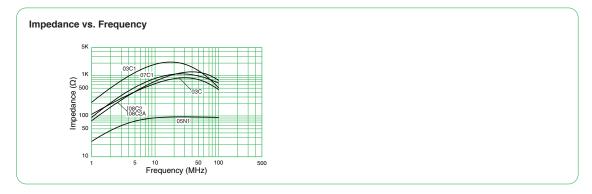
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NEC/TOKIO DIP Type

Common Mode Signal Line

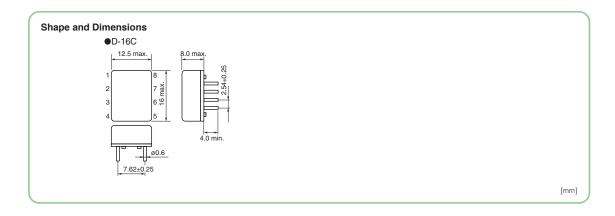
DIP Noise Filters D-16C

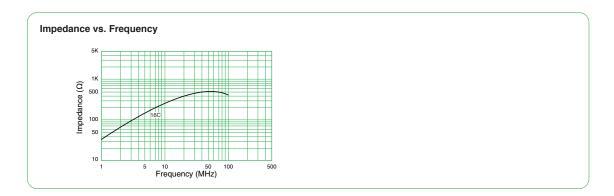
[RoHS Compliant]



Model	Circuit diagram		Number of terminals/ Circuits	Rated voltage DC (V)	Rated current DC (mA/Line)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)
D-16C	1 8 2 700 7 3 700 6 4 700 5	1 core	8P/4 circuits Common mode	50	100	50	-20 to +70

• Withstanding voltage: 200VDC (one minute, between lines) • Insulation resistance: more than 10M\(\Omega\) (100VDC, between lines)





DC Line Filters VOL.10



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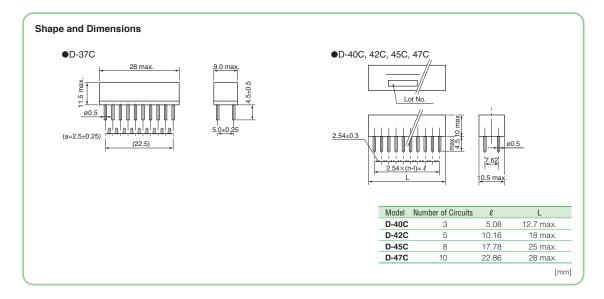
DIP Noise Filters D-37C, 40C, 42C, 45C, 47C

[RoHS Compliant]



Model	Circuit diagram		Number of terminals/ Circuits	Rated voltage DC (V)	Rated current DC (mA/Line)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)
D-37C	1 20 2 19 10 11	1 core	20P/10 circuits Common mode	50	300	200	-20 to +70
D-40C	1 — 6 2 — 5 3 — 4	1 core	6P/3 circuits Common mode	50	300	200	-20 to +70
D-42C	1 10 2 9 5 6	1 core	10P/ 5 circuits Common mode	50	300	200	-20 to +70
D-45C	1	1 core	16P/ 8 circuits Common mode	50	300	150	-20 to +70
D-47C	1 20 2 19 10 11	1 core	20P/ 10 circuits Common mode	50	300	200	-20 to +70

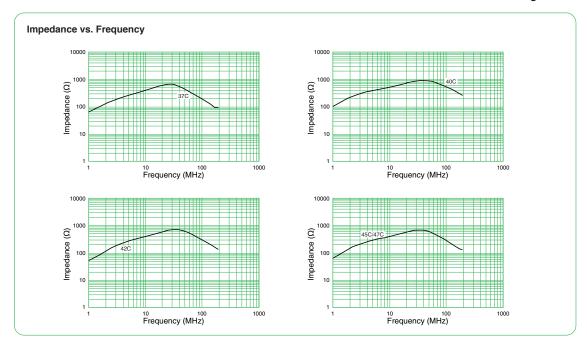
 $\bullet \ \ \text{Withstanding voltage: 200VDC (one minute, between lines)} \\ \quad \bullet \ \ \text{Insulation resistance: more than 10M} \Omega \ (100VDC, between lines)$



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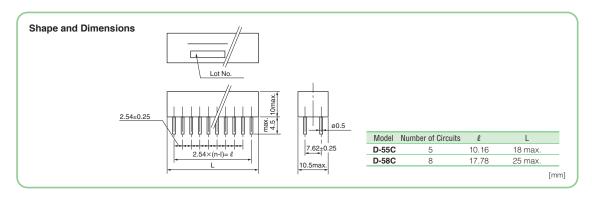
DIP Noise Filters D-55C, 58C

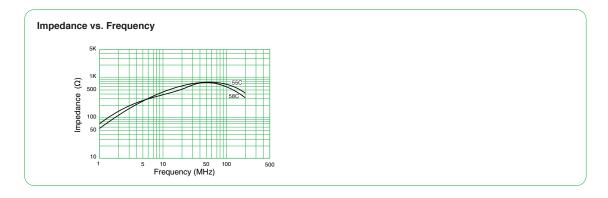
[RoHS Compliant]



Model	Circuit diagram		Number of terminal/ Circuits	Rated voltage DC (V)	Rated current DC (mA/Line)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)
D-55C	1 10 2 9 5 6	1 core	10P/5 circuits Common mode	50	300	200	-20 to +70
D-58C	1	1 core	16P/8 circuits Common mode	50	300	200	-20 to +70

Withstanding voltage: 200VDC (one minute, between lines)
 Insulation resistance: more than 10MΩ (100VDC, between lines)





DC Line Filters VOL.10



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DIP Type NEC/TOKIN

Common Mode for Telephone Sets

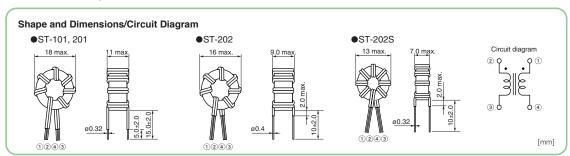
Noise Filters for Telephone Sets ST-101, 201, 202, 202S

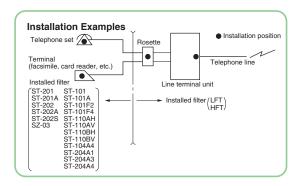
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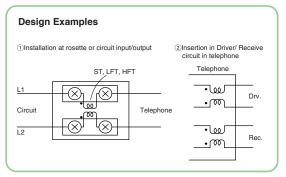


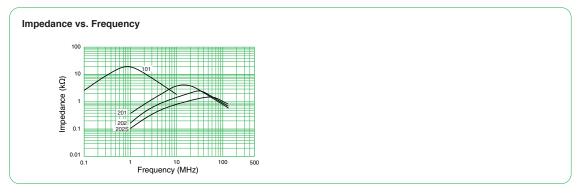
Model	Frequency range (MHz)	Impedance $(k\Omega)$ min.	Rated voltage DC (V)	Rated current (mA)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)	Remarks
ST-101	0.5 to 7	3 (at 0.5 MH	z) 50	200	180	-20 to +75	AM band
ST-201	7 to 40	1.5 (at 7 MHz)	50	200	100	-20 to +75	FM band
ST-202	7 to 100	0.6 (at 100 MH	Hz) 50	1000	40	-20 to +75	FM band
ST-202S	7 to 100	0.6 (at 100 MH	lz) 50	1000	35	–20 to +75	FM band

- Withstanding voltage: 500VDC (one minute, between lines)
 Insulation resistance: more than 10MΩ (250VDC, between lines)
- Recommended soldering conditions: 350±10°C, 2 to 3 sec.









DC Line Filters VOL.10



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Common Mode for Telephone Sets

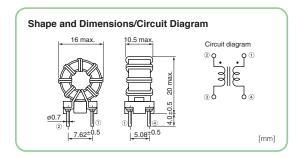
Noise Filters for Telephone Sets ST-101A, **201A**, **202A**

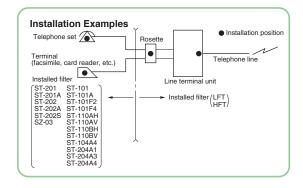
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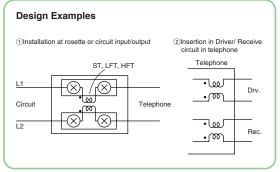


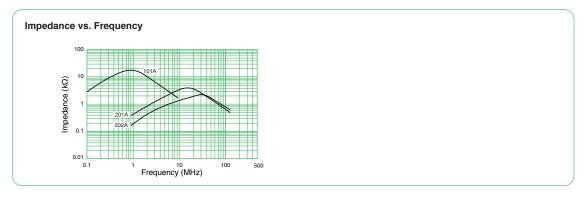
Model	Frequency range (MHz)	Impedance $(k\Omega)$ min.	Rated voltage DC (V)	Rated current (mA)	DC resistance $(m\Omega/Line)$ max.	Operating temperature range (°C)	Remarks
ST-101A	0.5 to 7	3 (at 0.5 MHz)	50	200	250	-20 to +65	AM band
ST-201A	7 to 40	1.5 (at 7 MHz)	50	200	150	-20 to +65	FM band
ST-202A	7 to 100	0.6 (at 100 MHz)	50	1000	50	-20 to +65	FM band

• Withstanding voltage: 500VDC (one minute, between lines) • Insulation resistance: more than 10MΩ (100VDC, between lines)









DC Line Filters VOL.10



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NEC/TOKIO DIP Type

Common Mode for Telephone Sets

Noise Filters for Telephone Sets ST-110AV, 110AH, 110BV, 110BH

[RoHS Compliant]



Model	Frequency range (MHz)	Impedance $(k\Omega)$ min.	Rated voltage DC (V)	Rated current (mA)	DC resistance (Ω/Line) max.	Operatings temperature range (°C)	Remarks
ST-110AV	0.5 to 7	27 (at 0.5 MHz)	50	300	3	-20 to +75	AM band
ST-110AF	0.5 to 7	27 (at 0.5 MHz)	50	300	3	-20 to +75	AM band
ST-110BV	0.5 to 7	150 (Resonant)	50	150	7.5	-20 to +75	AM band
ST-110BH	0.5 to 7	150 (Resonant)	50	150	7.5	-20 to +75	AM band

- Withstanding voltage: 500VDC (one minute, between lines)
 Insulation resistance: more than 10MΩ (250VDC, between lines)
- Shape and Dimensions/Circuit Diagram

 ST-110AV, ST-110BV

 ST-110AH, ST-110BH

 17 max.

 17 max.

 17 max.

 15.5 max.

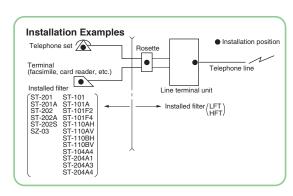
 Circuit diagram

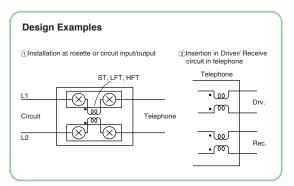
 0.0.6

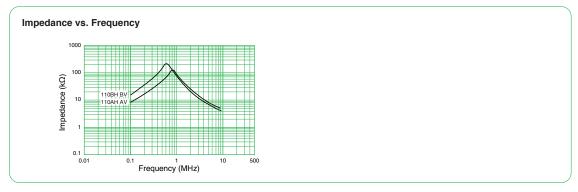
 7.0±0.5

 Circuit diagram

 17,0±0.5







DC Line Filters VOL.10



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Common Mode for Telephone Sets

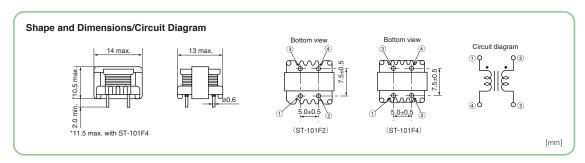
Noise Filters for Telephone Sets ST-101F2, **101F4**

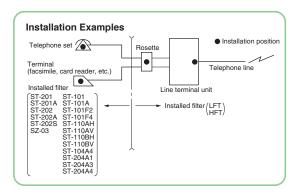
[RoHS Compliant]

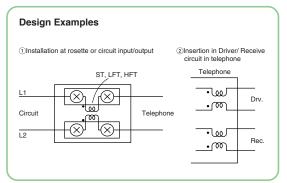


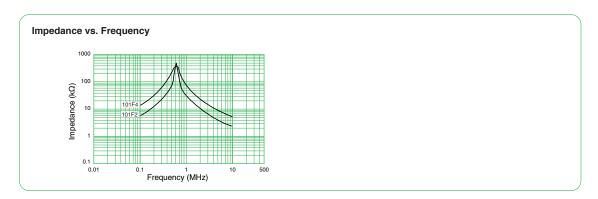
Model	Frequency range (MHz)	Impedance $(k\Omega)$ min.	Rated voltage DC (V)	Rated current (mA)	DC resistance (Ω/Line) max.	Operating temperature range (°C)	Remarks
ST-101F	2 0.5 to 7	40 (at 600 kHz)	50	200	2.7	-20 to +75	AM band
ST-101F	4 0.5 to 7	60 (at 600 kHz)	50	200	3.5	-20 to +75	AM band

 $[\]bullet \ \ \text{Withstanding voltage: 500VDC (one minute, between lines)} \\ \bullet \ \ \text{Insulation resistance: more than 10M} \\ \Omega \ \ (250\text{VDC between lines})$









DC Line Filters VOL.10



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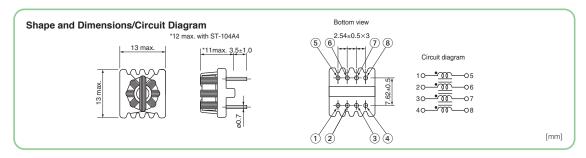
Noise Filters for Telephone Sets ST-104A4, 204A Series

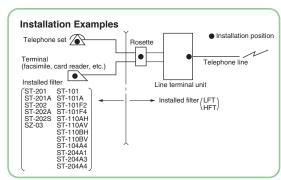
[RoHS Compliant]

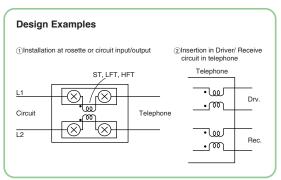


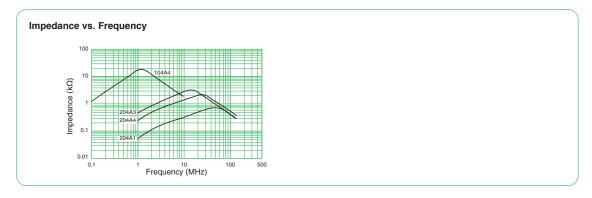
Model	Frequency range (MHz)	Impedance $(k\Omega)$ min.	Rated voltage DC (V)	Rated current (mA)	DC resistance (Ω/Line) max.	Operating temperature range (°C)	Remarks
ST-104A4	0.5 to 7	3.0 (at 0.5 MHz)	50	500	0.36	-20 to +75	AM band
ST-204A1	7 to 100	0.25 (at 10 MHz)	50	500	0.10	-20 to +75	FM band
ST-204A3	7 to 40	1.0 (at 7 MHz)	50	500	0.17	-20 to +75	FM band
ST-204A4	7 to 40	0.6 (at 7 MHz) REF	50	500	0.12	-20 to +75	FM band

Withstanding voltage: 500VDC (one minute, between lines)
 Insulation resistance: more than 10MΩ (250VDC, between lines)









DC Line Filters VOL.10



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SBT Series

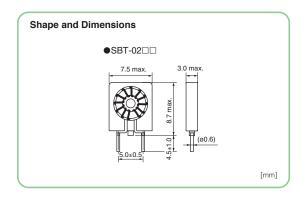
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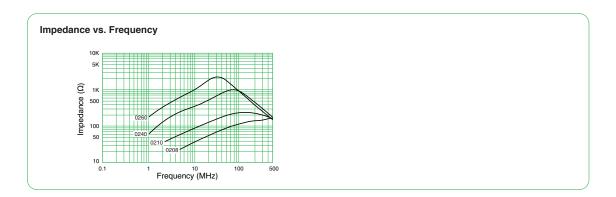


• Tape and Reel Dimensions (see page 39)

Model	Rated voltage DC (V)	Rated current (mA)	Inductance (1kHz, 70mA) (μΗ)	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)	Packaging
SBT-0208□	50	500	8±50%	20	-25 to +70	
SBT-0210□	50	500	10±50%	20	-25 to +70	Bulk (100pcs.)
SBT-0240□	50	500	40±35%	34	-25 to +70	bulk (100pcs.)
SBT-0260□	50	500	60±35%	50	-25 to +70	

• Taping (2000 pcs./ reel x 6), TFFlat taping (1000pcs./ box x 10)





DC Line Filters VOL.10



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SNT Series

[RoHS Compliant]

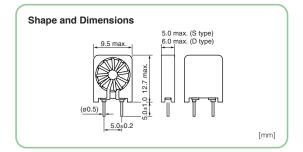


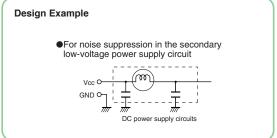
• Tape and Reel Dimensions (see page 39)

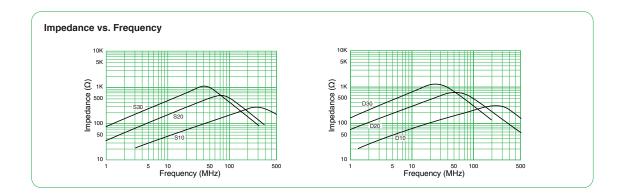
Model	Rated current* (A)	Inductance (µH) min.	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)	Packaging
SNT-S10□	3.0	1.5	25	-20 to +60	
SNT-S20□	1.5	6	35	-20 to +60	
SNT-S30□	0.5	13	95	-20 to +60	Bulk (100 pcs.)
SNT-D10□	3.0	2.5	25	-20 to +60	Duik (100 pcs.)
SNT-D20□	1.5	10	45	-20 to +60	
SNT-D30□	0.5	20	98	-20 to +60	

*The rated current is for the wire and it is different from the inductance guaranteeing values.

• Taping (1000 pcs./ reel) • Flat taping (SNT-S type: 1000 pcs./ reel), (SNT-D type: 500 pcs./ reel)







DC Line Filters VOL.10



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Bead Inductors (Lead Type)

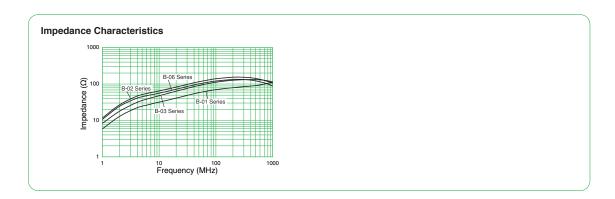
[RoHS Compliant]



Model	Rated current DC (A)	Impedance (Ω)	Operating temperature range (°C)	
B-01-Series		2 (at 1 MHz)		
B-02-Series	5	4 (at 1 MHz)	-20 to +70	
B-03-Series	9	5 (at 1 MHz)	2010 +70	
B-06-Series		40 (at 10 MHz)		

Note: Rated current values are not guaranteed by impedance levels; these values are permissible levels when the lead wire temperature rise is 20°C.

Model	Shape	Packaging
B-01-R	Single-bead, radial-lead	Bulk type (100 pcs./bag)
B-01-RT	Single-bead, radial-lead	Tape type (2000 pcs./reel)
B-01-RTF	Single-bead, radial-lead	Tape type (2000 pcs./box)
B-01-RS	Single-bead, radial-lead	Bulk type (100 pcs./bag)
B-01-RTS	Single-bead, radial-lead	Tape type (2000 pcs./reel)
B-01-RTSF	Single-bead, radial-lead	Tape type (2000 pcs./box)
B-01-A	Single-bead, axial-lead	Bulk type (100 pcs./bag)
B-01-A1	Single-bead, axial-lead	Bulk type (250 pcs./bag)
B-01-A2	Single-bead, axial-lead	Bulk type (250 pcs./bag)
B-01-AT	Single-bead, axial-lead	Tape type (5000 pcs./reel)
B-01-ATF	Single-bead, axial-lead	Tape type (1500 pcs./box)
B-01-AT1F	Single-bead, axial-lead	Tape type (2000 pcs./box)
B-02-R	Double-bead, radial-lead	Bulk type (100 pcs./bag)
B-02-RT	Double-bead, radial-lead	Tape type (2000 pcs./reel)
B-02-RTF	Double-bead, radial-lead	Tape type (1500 pcs./box)
B-03-R	Double-bead, radial-lead	Bulk type (100 pcs./bag)
B-03-RT	Double-bead, radial-lead	Tape type (2000 pcs./reel)
B-06-R-25	Double-bead, radial-lead	Bulk type (100 pcs./bag)
B-06-RTF-25	Double-bead, radial-lead	Tape type (1500 pcs./reel)
B-06-R-50	Double-bead, radial-lead	Bulk type (100 pcs./bag)
B-06-RTF-50	Double-bead, radial-lead	Tape type (1500 pcs./box)

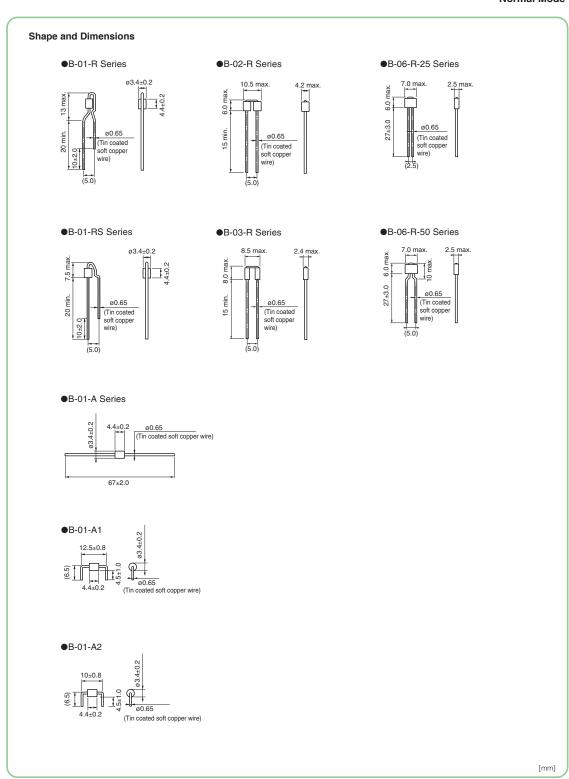


DC Line Filters VOL.10



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Normal Mode



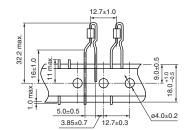
DC Line Filters VOL.10



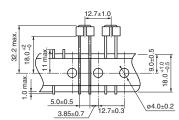
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Tape and Reel Dimensions

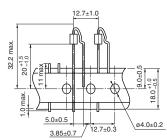
●B-01-RT • RTF



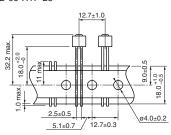
●B-02-RT • RTF/B-03-RT



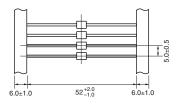
●B-01-RTS • RTSF



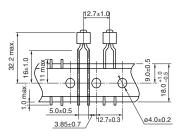
●B-06-RTF-25



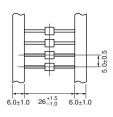
●B-01-AT • ATF



●B-06-RTF-50



●B-01-AT1F



DC Line Filters VOL.10

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[mm]



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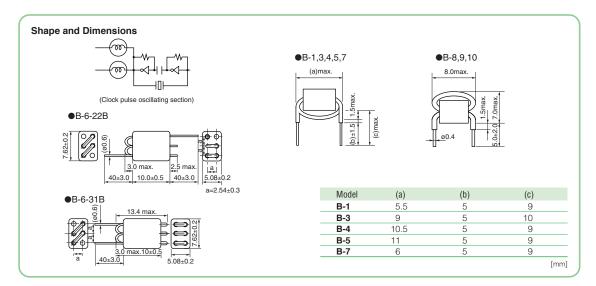
Bead Inductors (Winding Type)

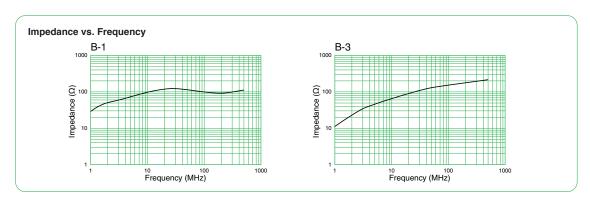
[RoHS Compliant]

NEC/TOKIN



Model	Core	Wire	No. of turns
B-1	B-20F-28	Teflon wire (ø0.26 : single) / Color: White	2T
B-3	B-20L-48B	Teflon wire (ø0.51 : single) / Color: Red	2T
B-4	B-20L-44	Teflon wire (ø0.26 : single) / Color: White	2T
B-5	B-20L-44	Teflon wire (ø0.26 : single) / Color: White	3T
B-7	B-20F-28	Teflon wire (ø0.32 : single) / Color: Green	2T
B-8	B-20L-48B	Teflon wire (ø0.4 : single) / Color: Blue	2T
B-9	B-20L-48B	Teflon wire (ø0.4 : single) / Color: Yellow	3T
B-10	B-20L-48B	Teflon wire (ø0.4 : single) / Color: Black	4T
B-6-22B	<u> </u>	Soft copper wire (ø0.6)	
B-6-31B	<u> </u>	Soft copper wire (ø0.6)	_

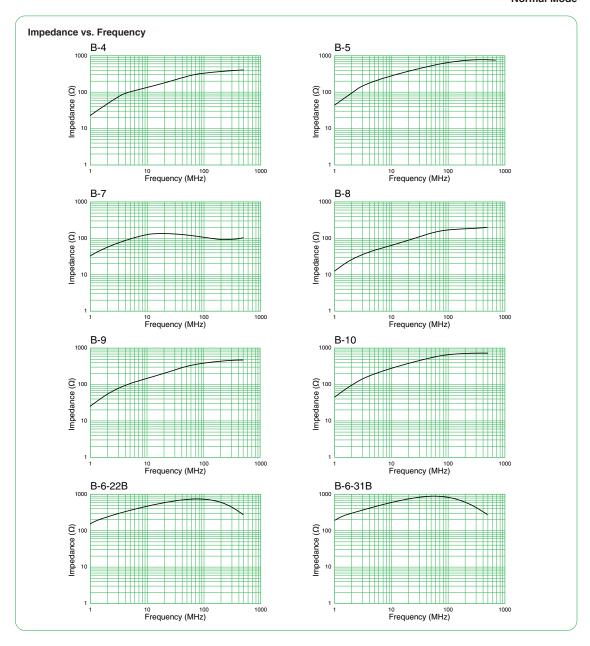




DC Line Filters VOL.10



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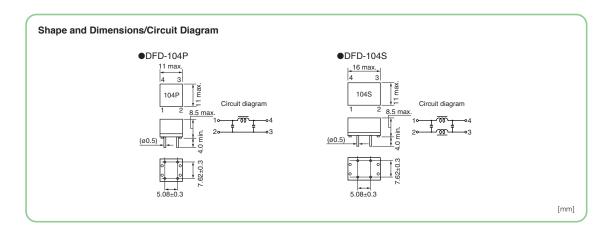
DFD Series

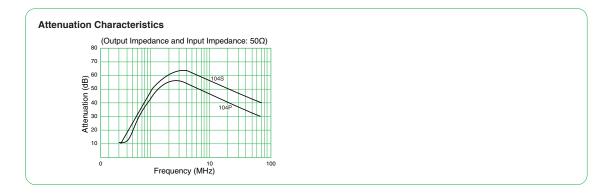
[RoHS Compliant]



Model	Rated voltage DC (V)	Rated current DC (A)	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)
DFD-104P	50	2.0	100	-25 to +85
DFD-104S	50	2.0	100	-25 to +85

 $\bullet \text{ Withstanding voltage: } 125\text{VDC, 5 sec. between terminal 1 and 2 } \quad \bullet \text{ Insulation resistance: more than } 500\text{M}\Omega \text{ (100VDC, one minute)}$





DC Line Filters VOL.10



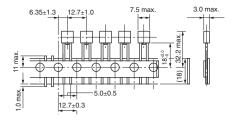
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DIP Type

Tape and Reel Dimensions

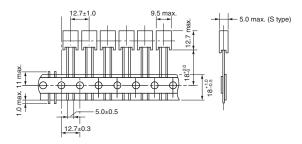
SBT Series

Tape and Reel Dimensions



SNT Series

Tape and Reel Dimensions



DC Line Filters VOL.10



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NEC/TOKIO SMD Type

Common Mode Power Line

SBS9080 Series

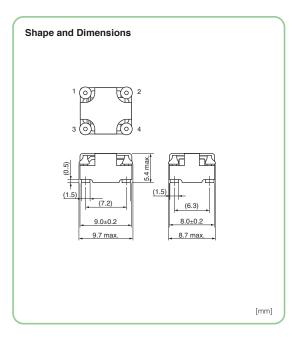
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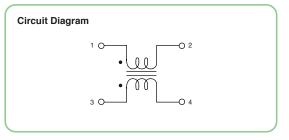


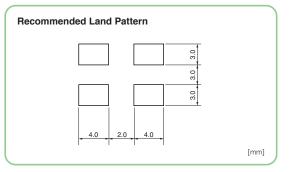
• Tape and Reel Dimensions (see page 44) • Precautions (see page 43)

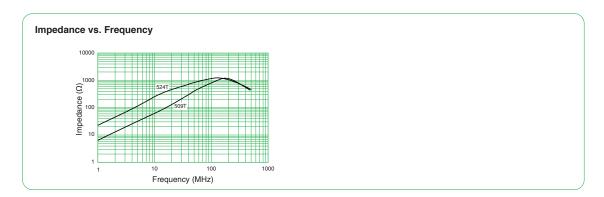
Model	Rated voltage DC (V)	Rated current DC (A)	Inductance (at 100KHz) (µH) min.	DC resistance $(m\Omega/line)$ max.	Operating temperature range (°C)
SBS9080-509T	50	5.0	0.9	15	-25 to +50
SBS9080-524T	50	5.0	2.4	15	-25 to +50

Withstanding voltage: 125V DC for one minute between lines
 Insulation resistance: More than 10MΩ (100V DC, between lines)









DC Line Filters VOL.10



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SBP Series

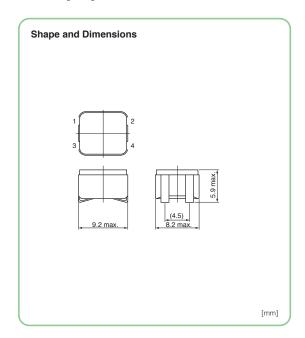
[RoHS Compliant]

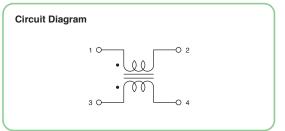


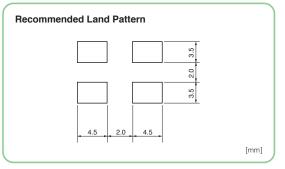
• Tape and Reel Dimensions (see page 44) • Precautions (see page 43)

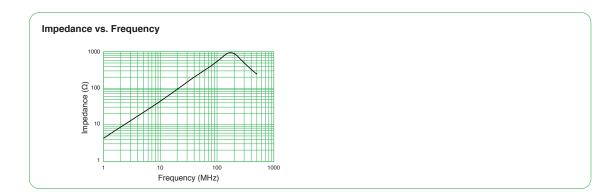
Model	Rated voltage DC (V)	Rated current DC (A)	Impedance (at 100MHz) (Ω) min.	DC resistance $(m\Omega/line)$ max.	Operating temperature range (°C)
SBP-5001T	50	5.0	500	7	-25 to +70

Withstanding voltage: 200V DC for one minute between lines
 Insulation resistance: More than 10MΩ (100V DC, between lines)









DC Line Filters VOL.10



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NEC/TOKIN SMD Type

Common Mode Power Line

DCM Series

[RoHS Compliant]

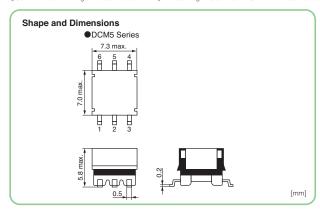


• Tape and Reel Dimensions (see page 46) • Precautions (see page 43)

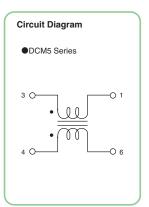
Model	Rated voltage	Rated current (A)	L (µH) min	Rdc (mΩ) max	Туре
DCM5-01	50	0.2	2540	3180	EE5
DCM5-02	50	0.5	520	510	EE5
DCM5-03	50	1.0	210	180	EE5
DCM5-04	50	2.0	30	30	EE5

- ●Inductance measurement condition: f = 10KHZ 0.1V ※●Insulation resistance: more than 100MΩ(250V DC, 1min, between lines) ●Operating temperature range(°C): -20 to 110 (includes the selftemp.rise)

 Look: By number-of-turns adjustment, to products other than the above-mentioned characteristic is also possible, please consult.
- ●Common mode winding with section bobbin. ※●Withstanding voltase : 250V DC for one minute between lines.



Recommended Land Pattern ODCM5 Series Top view) Top

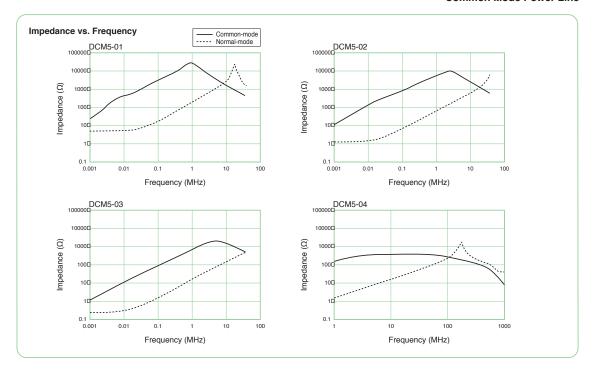


DC Line Filters VOL.10



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Common Mode Power Line



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NEC/TOKIO SMD Type

Common Mode Signal Line

EMC Chip Filters M-500CT/M-600T Series

[RoHS Compliant]



• Tape and Reel Dimensions (see page 44-46) • Precautions (see page 43)

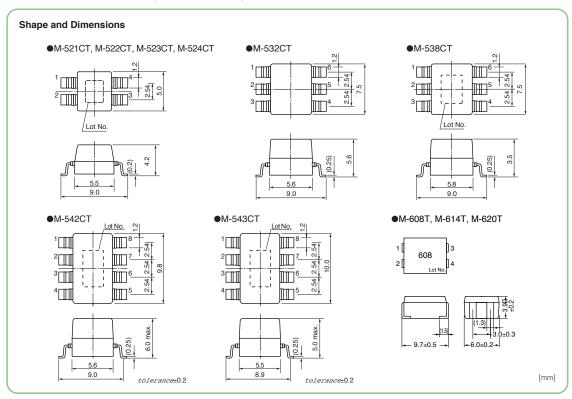
M-500CT Series

Model	DG (V)		Impedance (Ω) min.	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)
M-521CT	50	1.0	700 (at 10 MHz)	100	-25 to +85
M-522CT	50	1.0	200 (at 20 MHz)	100	-25 to +85
M-523CT	50	1.5	200 (at 20 MHz)	65	-25 to +85
M-524CT	80	0.5	700 (at 10 MHz)	100	-25 to +85
M-532CT	50	0.5	450 (at 100 MHz)	90	-25 to +85
M-538CT	50	0.1	800 (at 100 MHz)	220	-25 to +70
M-542CT	50	0.5	200 (at 10 MHz)	120	–20 to +75
M-543CT	50	1.0	700 (at 10 MHz)	100	-25 to +85

M-600T Series

Model	Rated voltage DC (V)	Rated current DC (A)	Impedance (Ω) min.	DC resistance $(m\Omega)$ max.	Operating temperature range (°C)
M-608T	50	0.1	300 (at 100 MHz)	80	-20 to +80
M-614T	50	0.1	1000 (at 50 MHz)	120	-20 to +80
M-620T	50	0.1	1000 (at 30 MHz)	160	-20 to +80

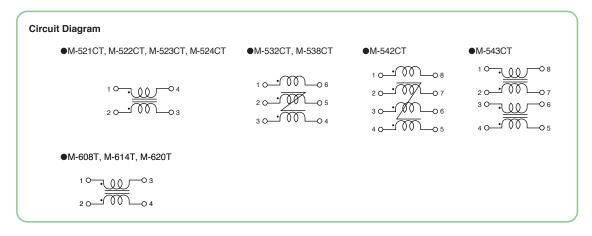
• Insulation resistance: more than $10M\Omega$ (100V DC, between lines)

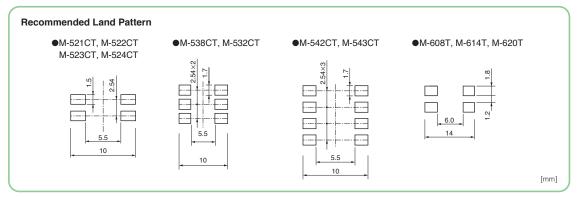


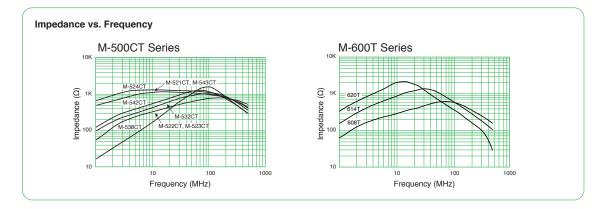
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Precautions

Shelf Life

Use within 6 months. If the product is used after a storage period of 6 months or longer, confirm its solderability before use.

Recommended Soldering Conditions

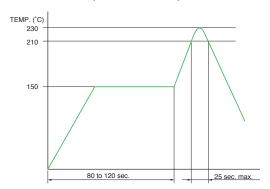
· Soldering irons:

Tip temperature: 350±5°C Duration of heat: approx. 4 seconds

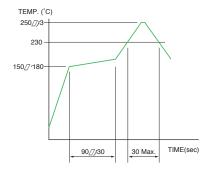
- Flow soldering: not suitable
- Reflow soldering: Refer to the following temperature profile.
- Standard thickness of cream Solder = 150 μ m \sim 200 μ m.

Recommended reflow profile shown below are data obtained from reflow equipment used at NEC TOKIN. The Solderbility may differ greatly depending on reflow equipment type, reflow condition, land pattern area and the amount of cream Solder. Please check the Solderbility thoroughly before actual reflow operation.

Reflow Profile 1 (for SBP-5001T)



Reflow Profile 2 (for lead-free type)



DC Line Filters VOL.10

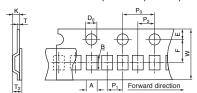


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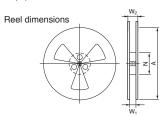
Tape and Reel Dimensions

SBS9080 (1000pcs./reel)

Dimensions of indented square-hole plastic tape



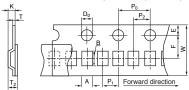
											[IIIIII]
A ₀	B ₀	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T ₂	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	0.6≧	7.2≧	7.0≧
9.5	10.3	16	7.5	1.75	12	2.0	4.0	1.5	0.6	7.2	7.0



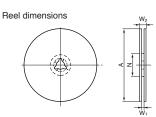
			[IIIIII]
Α	N	W ₁	W ₂
		±0.5	25≧
330	100	17.5	25

SBP-5001T (1000pcs./reel)

Dimensions of indented square-hole plastic tape



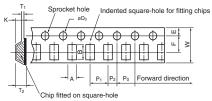
											[IIIIII]
Α	В	W	F	Е	P ₁	P_2	P ₀	D_0	T ₁	T_2	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	0.4≧	5.7≧	5.8≧
9.0	9.0	16	7.5	1.75	12	2.0	4.0	1.5	0.4	5.7	5.8



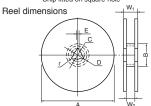
			LIIIIII
A	N	W ₁	W ₂
		+6, -0	25≧
330	79	16	25

M-521CT/M-522CT/M-523CT/M-524CT (conforms to EIAJ RC-1009) (1500pcs./reel)

Dimensions of indented square-hole plastic tape



											[mm]
Α	В	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T ₂	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	max.	max.	max.
5.3	9.5	16	7.5	1.75	8.0	2.0	4.0	1.5	0.6	6.5	6.4



							[IIIIII]
Α	В	С	D	E	r	W ₁	W ₂
±3.0	±2.0	±0.2	±0.8	±0.5	_	max.	+6, -0
330	79	13	21	2.0	1.0	25	16

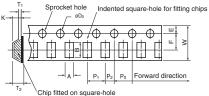
DC Line Filters VOL.10



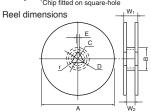
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M-532CT (conforms to EIAJ RC-1009) (1000pcs./reel)

Dimensions of indented square-hole plastic tape



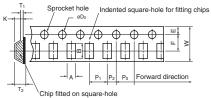
											[mm]
Α	В	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T_2	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	max.	max.	max.
7.9	9.4	16.0	7.5	1.75	12.0	2.0	4.0	1.5	0.6	6.9	6.8



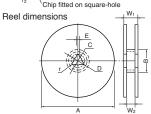
							[IIIII]
А	В	С	D	E	r	W ₁	W ₂
±3.0	±2.0	±0.2	±0.8	±0.5	_	max.	+6, -0
330	80	13.0	21.0	2.0	1.0	25.0	16.0

M-538CT (conforms to EIAJ RC-1009) (1500pcs./reel)

Dimensions of indented square-hole plastic tape



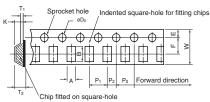
											[mm]
Α	В	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T_2	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	max.	max.	max.
7.9	9.4	16.0	7.5	1.75	12.0	2.0	4.0	1.5	0.6	4.6	4.5



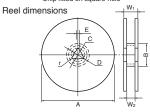
							[mm]
Α	В	С	D	E	r	W ₁	W ₂
±3.0	±2.0	±0.2	±0.8	±0.5	_	max.	+6, -0
330	80	13.0	21.0	2.0	1.0	25.0	16.0

M-542CT (conforms to EIAJ RC-1009) (1000pcs./reel)

Dimensions of indented square-hole plastic tape



												[mm]
I	Α	В	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T ₂	K
	±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	max.	max.	max.
	9.5	10.5	16.0	7.5	1.75	12.0	2.0	4.0	1.5	0.6	7.2	7.0



							[mm]
Α	В	С	D	E	r	W ₁	W ₂
±3.0	±2.0	±0.2	±0.8	±0.5	_	max.	+6, -0
330	100	13.0	21.0	2.0	1.0	25.0	17.5±0.5

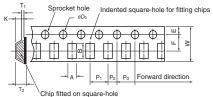
DC Line Filters VOL.10



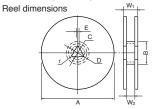
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M-608T/M-614T/M-620T (conforms to EIAJ RC-1009) (1500pcs./reel)

Dimensions of indented square-hole plastic tape



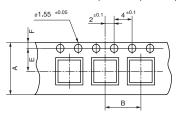
											[mm]
Α	В	W	F	Е	P ₁	P ₂	P ₀	D ₀	T ₁	T ₂	K
±0.3	±0.3	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1, -0	max.	max.	max.
6.4	10.2	16.0	7.5	1.75	8.0	2.0	4.0	1.5	0.6	6.5	6.4



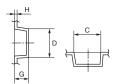
							[IIIII]
А	В	С	D	E	r	W ₁	W ₂
±3.0	±2.0	±0.2	±0.8	±0.5	_	max.	+6, -0
330	79	13.0	21.0	2.0	1.0	25.0	16.0

DCM5 Series(2000pcs./reel)

Dimensions of indented square-hole plastic tape



								[mm]
Mode1	$\Box\Box$	В	С	D	Е	F	G	Н
DCM5 Series	16±0.3	8	6.3	8.3	7.5	1.75	5.2	0.38±0.05



DC Line Filters VOL.10



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DC	Line	Filters	VOL.	10
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Precautions



- The names of the products and the specifications in this catalog are subject to change without notice for the sake of improvement. The manufacturer also reserves the right to discontinue any of these products. At the time of delivery, please ask for specifications sheets to check the contents in order to use the products properly and safely.
- Descriptions in this catalog regarding product characteristics and quality are based solely on discrete components. When using these components, be sure to check the specifications with the component in question mounted on the products.
- The manufacturer's warranty will not cover any disadvantage or damage caused by improper use of the products that deviates from the characteristics, specifications, or conditions for use described in this catalog.
- The products in this catalog are intended for use in ordinary electronic products. If any of these products are to be used in special applications requiring extremely high reliability, such as in aviation equipment and nuclear power controllers where product defects might pose a safety risk, please consult your NEC TOKIN sales representatives.
- Though the manufacturer has taken all possible precautions to ensure the quality and reliability of its products, improper use of products may result in bodily injury, fire, or similar accident. If you have any questions regarding the use of the products in question, please consult your NEC TOKIN sales representatives.
- Please be advised that the manufacturer accepts no responsibility for any infraction by users of the manufacturer's products on third party patents or industrial copyrights. The manufacturer is responsible only when such infractions are attributable to the structural design of the product and its manufacturing process.
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 NEC TOKIN products should not be used or sold for use in the development, production, stockpiling or utilization of any conventional weapons or mass-destructive weapons(nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.

 For customers in Japan

 For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required
- This catalog is current as of June 2011.



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for export.