

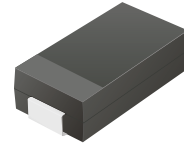
CDBA140LL-HF

Reverse Voltage: 40 Volts

Forward Current: 1.0 Amp

RoHS Device

Halogen free

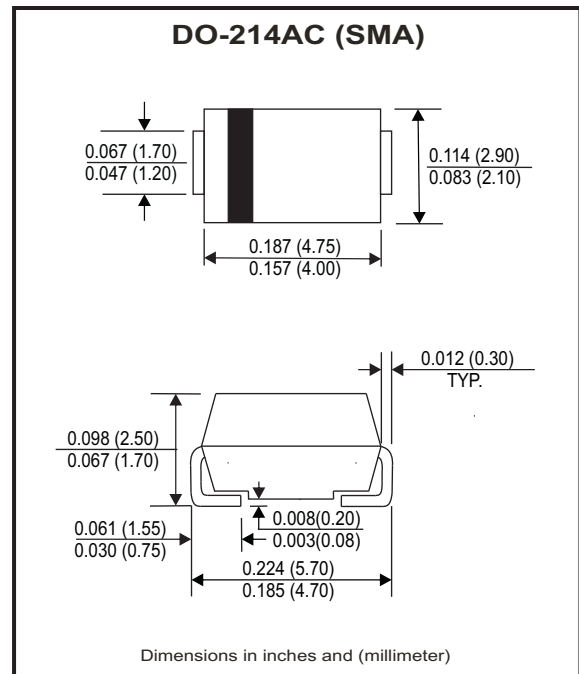


Features

- Low Profile surface mount applications in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

Mechanical data

- Case: JEDEC DO-214AC / SMA, molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Solder plated, Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.055 grams



Maximum Ratings and Electrical Characteristics

Ratings at $T_a=25^{\circ}\text{C}$ unless otherwise noted.
 Single phase, half wave, 60Hz, resistive or inductive loaded.
 For capacitive load, derate current by 20% .

Parameter	Symbol	CDBA140LL-HF	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Max. RMS Voltage	V_{RMS}	28	V
Max. DC Blocking Voltage	V_{DC}	40	V
Max. Instantaneous Forward Voltage @1.0A, $T_a=25^{\circ}\text{C}$	V_F	0.35	V
Max. Forward Rectified Current (See Fig.1)	I_O	1.0	A
Max. Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50	A
Max. Reverse Current	$V_R=V_{RRM}$ $T_J=25^{\circ}\text{C}$	1.0	mA
	$V_R=V_{RRM}$ $T_J=100^{\circ}\text{C}$	20	
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	80	$^{\circ}\text{C/W}$
Typical Diode Junction Capacitance(Note 2)	C_J	130	pF
Operating Temperature Range	T_J	-50 to +100	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-50 to +150	$^{\circ}\text{C}$

NOTES:

1. Thermal resistance from junction to ambient.
2. $F=1\text{MHz}$ and applied 4V DC reverse Voltage.

Company reserves the right to improve product design , functions and reliability without notice.

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RATING AND CHARACTERISTIC CURVES (CDBA140LL-HF)

Fig.1 - Typical Forward Current Derating Curve

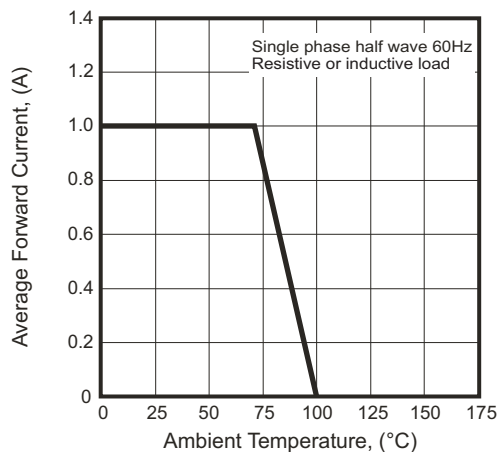


Fig.2 - Typical Forward Characteristics

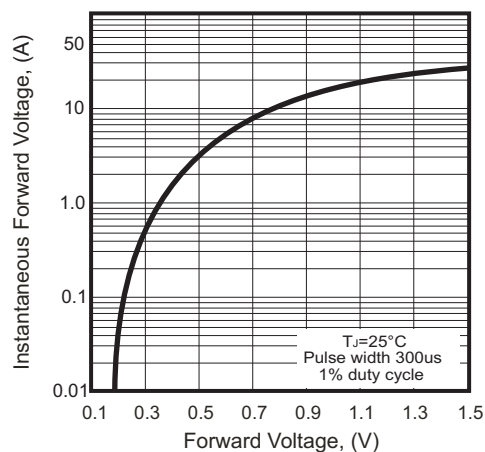


Fig.3 - Maximum Non-repetitive Forward Surge Current

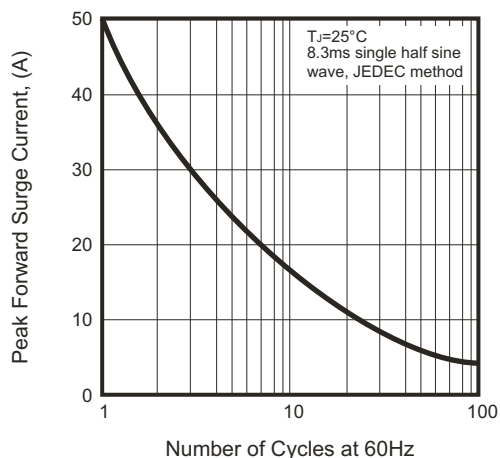


Fig.4 - Typical Junction Capacitance

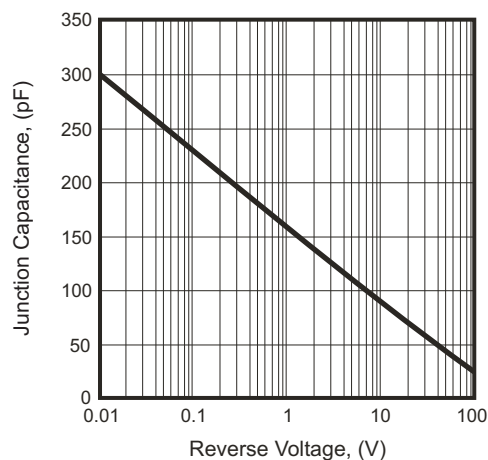
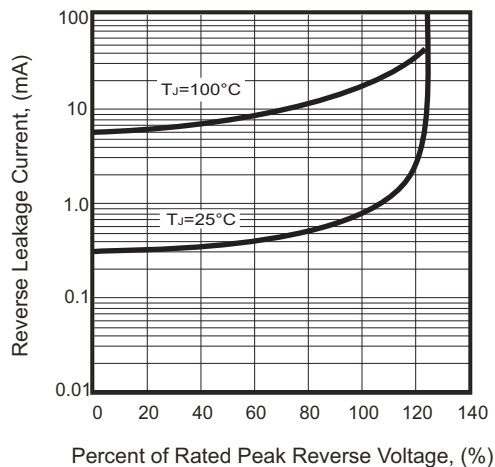


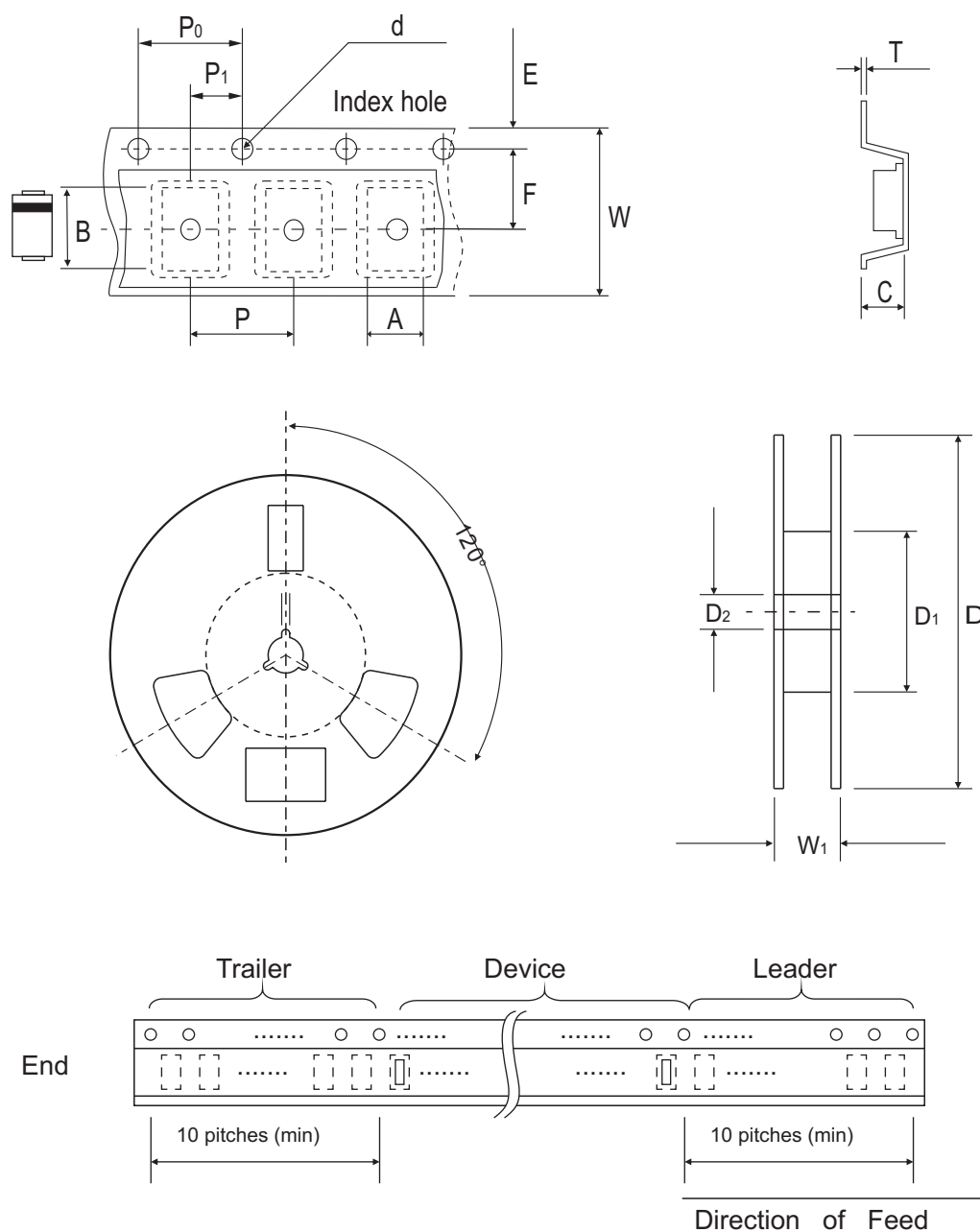
Fig.5 - Typical Reverse Characteristics



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Reel Taping Specification



DO-214AC (SMA)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.70 ± 0.10	5.30 ± 0.10	2.66 ± 0.10	1.50 ± 0.10	330 ± 2.00	62.0 MIN.	13.50 ± 0.50
	(inch)	0.106 ± 0.004	0.209 ± 0.004	0.105 ± 0.004	0.059 ± 0.004	12.99 ± 0.079	2.441 MIN.	0.531 ± 0.020

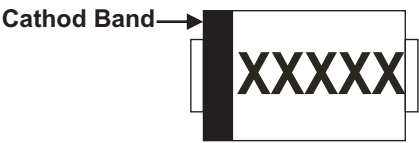
DO-214AC (SMA)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	5.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.60 ± 0.10	12.0 ± 0.30	18.40 ± 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ± 0.012	0.724 ± 0.039

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Marking Code

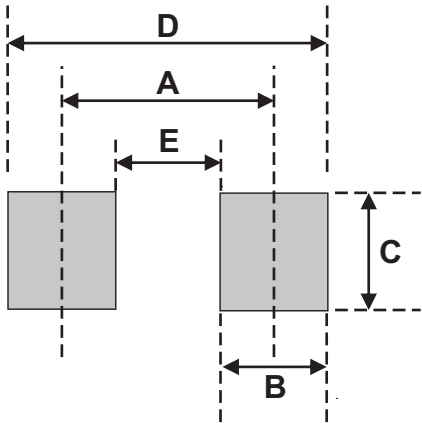
Part Number	Marking Code
CDBA140LL-HF	SLL14



XXXXXX = Product type marking code

Suggested PAD Layout

SIZE	DO-214AC (SMA)	
	(mm)	(inch)
A	4.00	0.157
B	2.50	0.100
C	1.70	0.068
D	6.50	0.256
E	1.50	0.060



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA)	5,000	13