50 Series

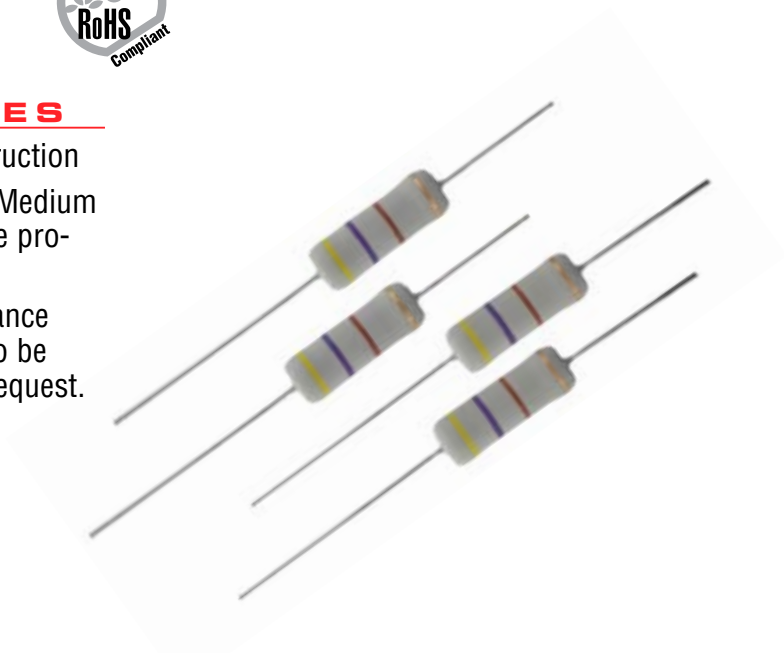
Economical Silicone Coated Wirewound

Automated winding, in-line color banding, and testing allow for an economically priced, industrial grade wirewound power resistor.

These resistors feature an all welded construction with a high purity alumina ceramic core and high quality RoHS grade tinned copper wire instead of copper weld which produces better thermal characteristics. The 50 series accompanies Ohmite's wide range of axial leaded products.

FEATURES

- Rugged construction
- Optimized for Medium to High volume production
- Custom resistance values can also be produced on request.



SERIES SPECIFICATIONS

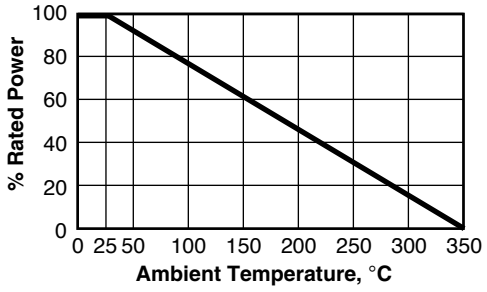
Series	Power at 25°C	Resistance	Limiting Element Voltage
53J	3W	0R1 to 10K	150
55J	5W	0R1 to 20K	200

CHARACTERISTICS

Temp. Coefficient of Resistance	±90 ppm/°C for below 1.0 Ω ±50 for 1.0 Ω to 99 Ω ±30 for 100 Ω and above
Short Term Overload	53J 5X for 5 seconds 55J 10X for 5 seconds
Leads	Tin Coated Copper

Test	Condition	Maximum ΔR
Short term overload	5X Rated power for 5 seconds (3W); 10X Rated power for 5 seconds (5W)	<2% + 0R05
Load life at rated power	1000 hours (1.5 Hrs ON, 0.5 Hrs OFF cycle)	<5% + 0R05
Robustness of termination	As per BS-CECC 40201-002	<1% + 0R05

Derating



Key to four-band code

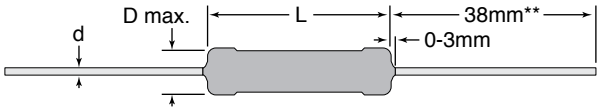
Band	1	2		3		4	
Color	**Digit**			**Multiplier**		**Tolerance**	
Black	0	0	x	1Ω			
Brown	1	1	x	10Ω	±	1%	(F)
Red	2	2	x	100Ω	±	2%	(G)
Orange	3	3	x	1KΩ	±	3%	
Yellow	4	4	x	10KΩ	±	4%	
Green	5	5	x	100KΩ			
Blue	6	6					
Violet	7	7					
Grey	8	8					
White	9	9					
Gold			x	0.1Ω	±	5%	(J)
Silver			x	0.01Ω	±	10%	(K)

50 Series

Low Cost Silicone Coated Axial

DIMENSIONS

(mm)



Type	L nom	D max*	d nom
53J	14±1.5	5.6	0.80±0.05
55J	21±1.5	8	1.0±0.05

*D max. will be 6mm max. for 53J and 8.5mm for 55J for values less than or equal to 1R0.

**When ordered on tape and reel, lead length will be 36mm ±3 for 53J and 34mm ± 3 for 55J.

ORDERING INFORMATION

50 Series

Non-Inductive Winding
Optional (blank = std. winding)

RoHS Compliant

Tape & reel
1000 per reel
Modified lead length

5 3 N J R 1 0 E - T R

Wattage
3 or 5 watt

Tolerance
J = 5%

Resistance Value
R10 = 0.10Ω
1R0 = 1.0Ω
10R = 10.0Ω
250 = 250Ω
1K0 = 1,000Ω
7K5 = 7500
20K = 20000

Standard Part Numbers

53JR10E	55JR10E
53JR50E	55JR50E
53J1R0E	55J1R0E
53J5R0E	55J5R0E
53J7R5E	55J7R5E
53J10RE	55J10RE
53J25RE	55J25RE
53J50RE	55J50RE
53J75RE	55J75RE
53J100E	55J100E
53J250E	55J250E
53J500E	55J500E
53J750E	55J750E
53J1K0E	55J1K0E
53J2K0E	55J2K0E
53J5K0E	55J5K0E
53J10KE	55J10KE
	55J20KE