

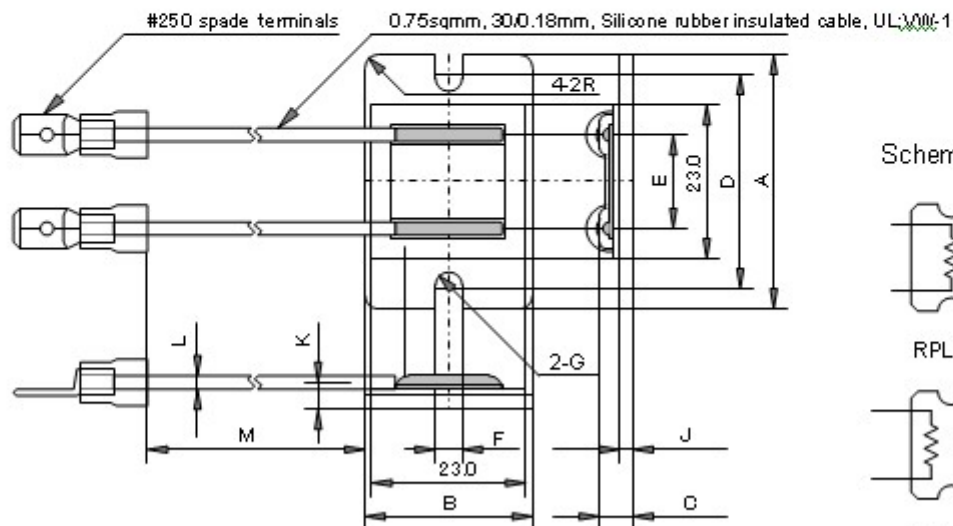
TPL300, TPL250 CHASSIS MOUNTING, NON-INDUCTIVE HIGH POWER RESISTORS



Features and Applications

These are compact, low profile, 300W high power resistors. An air-cooled heat sink or water-cooling is necessary. The rated power is 300W (single resistor) and 250W (two resistors). Units have M4 screw mounts, wire leads and very low series inductance. Resistors are also vibration-proof and exhibit perfect heat dissipation. Applications include: Snubber resistors for power supplies, gate resistors, pulse generators, high frequency amplifiers, dumping resistance of theater audio equipment of dividing network of loud speaker systems, etc.

Dimensions



Weight: grams: 20grams

	A	B	C	D	E	F	G	J	K	L	M
(mm)	38	25	4.0	32	14	4.2	2-2.1R.	1.5	2.5	2.1 dia.	150.0
	+/-0.5	+/-0.5	+/-0.5	+/-0.2	+/-0.5	+/-0.2		+/-0.2	+/-0.5		+/-10

Ordering Information

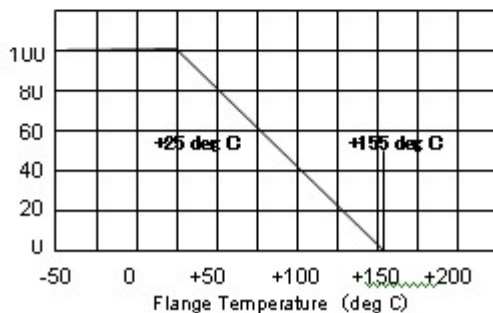
P/N	Type	TCR	Resistance	Tolerance	Note
RPL300A20ohmJ	RPL300	A(100ppm/K)	20ohm	J(5%)	One resistor
RPL300A100ohmJ	RPL300	A(100ppm/K)	100ohm	J(5%)	One resistor
RPL250A50+50ohmJ	RPL250	A(100ppm/K)	50+50ohm	J(5%)	Two resistor
RPL250A1K+1KohmJ	RPL250	A(100ppm/K)	1K+1Kohm	J(5%)	Two resistor

Specifications and Performances

Items	RPL250	RPL300	Test Conditions
Rating Power	250 Watts	300 Watts	At flange temperature -55 to +25 deg C
Resistance Range	0.1ohm to 51Kohm Dual	0.1ohm to 51Kohm Single	
Nominal Resistance	Any value	Any value	
TCR	+/-100 ppm/C(A)	+/-100 ppm/C(A)	For -55 to +155 deg C
Tolerance	+/-5.0%(J)	+/-5.0%(J)	+/- 1%(F) is available optionally
Operation Temp. Range	-55 - +155 deg C	-55 - +155 deg C	
Max. Applied Voltage	$E = \sqrt{P \cdot R}$		
Withstanding Voltage	2000 V AC		60 seconds. Between terminals and flange.
Load Life	+/- (1.0 % + 0.05 ohm)		25 deg C, 90 min. ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 % + 0.05 ohm)		40 deg C, 90 to 95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (1.0 % + 0.05 ohm)		-55C, 30 min., +155C30min., 20cycles. (-55 deg C, 30 min., +120C, 30min., 20cycles.)
Short Time Overload	+/- (0.25 % + 0.05 ohm)		Rating wattx1.5, 2.5 seconds, with heat sink.
Insulation Resistance	Over 1000 Meg ohm		Between terminals and flange.
Vibration	+/- (0.25 % + 0.05 ohm)		IEC60068-2-6, and specification is sin-wave sweep wave form, 10Hz-55Hz, 10 cycles, amplitude 0.75mm, 45minutes, direction x-y-z.

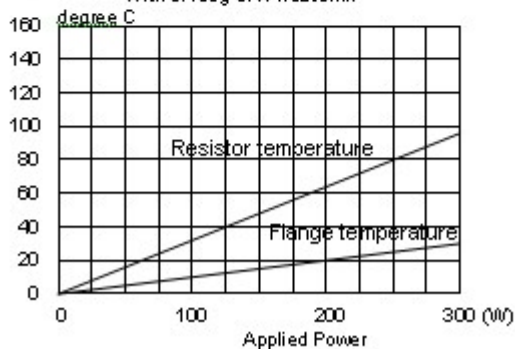
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Derating Curve, RPL300, RPL250
Rating Power



Temperature Rise, RPL300

With 0.1deg C/W heat sink



Materials:

Flange: Ni plated copper plate.
Substrate: AlN ceramics substrate.
Resistor: Metal film resistor.
Terminals: Silicone insulated wire and #250.
Surface electrical insulation: Silicone resin (hard) over Epoxy resin.

Note:

When water cool heat sink is used, actually keeping flange at less than 25 deg C is difficult. When flange temperature is over 25 deg C, rating will be decreased as shown as derating curve.
In short pulse application, peak power will be restricted under 300W.