TLR-3A

metal plate current sense resistor

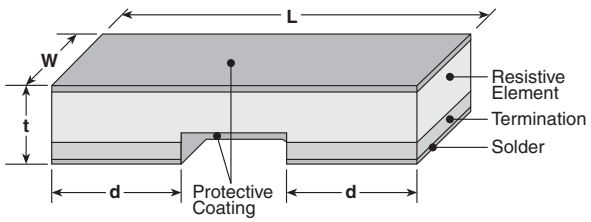
TLR3A NOT RECOMMENDED FOR NEW DESIGN.
ALTERNATIVE: TLR3AW

EU RoHS COMPLIANT

features

- Metal alloy: superior corrosion and heat resistance
- Applications include current sensing, voltage division and pulse applications
- Ultra low resistance
- Suitable for reflow soldering (Not suitable for flow soldering)
- Products with lead-free terminations meet EU RoHS and China RoHS requirements
- AEC-Q200 Tested

dimensions and construction



Size Code	Resistance	Dimensions inches (mm) L	W	d	t
TLR3A	1mΩ	.25±.01 (6.35±0.25)	.125±.01 (3.18±0.25)	.087±.01 (2.20±0.25)	.024±.01 (0.62±0.25)
	2mΩ			.047±.01 (1.20±0.25)	
	3mΩ			.073±.01 (1.85±0.25)	
	4mΩ			.047±.01 (1.20±0.25)	

ordering information

TLR	3A	D	TE	2L00	F
Type	Power Rating	Termination Material	Packaging	Nominal Resistance	Tolerance
	3A: 1W	D: SnAgCu	TE: 7" 8mm pitch embossed plastic	±1%: 4 digits All values less than 0.1Ω (100m) are expressed in mW with "L" as decimal Ex: 2mΩ = 2L00	F: ±1%

For further information on packaging, please refer to Appendix A.

2/08/22

TLR3A NOT RECOMMENDED FOR NEW DESIGN.
ALTERNATIVE: TLR3AW

applications and ratings

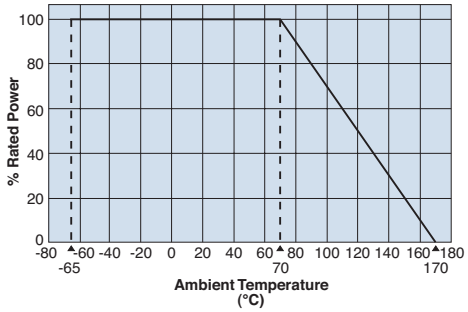
Part Designation	Power Rating	Rated Ambient Temperature	Rated Terminal Part Temperature	T.C.R. (ppm/°C) Max.*	Standard Resistance (Ω)	Resistance Tolerance	Operating Temperature Range
TLR3A	1W	70°C	105°C	±150	1m, 2m	F: ±1%	-65°C to +170°C
				±200	3m, 4m		

* Contact factory for 2mΩ dimensions

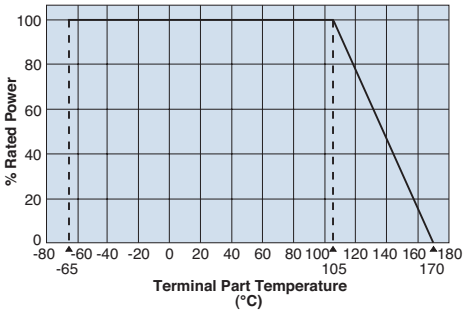
If any questions should arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature," please give priority to the "Rated Terminal Part Temperature." Prior to use and for more details refer to "Introduction of the derating curves on the terminal part temperature" in the beginning of the catalog.

environmental applications

Derating Curve



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.



For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve.

Please refer to "Introduction of the derating curve based on the terminal part temperature" in the beginning of our catalog before use.

Performance Characteristics

Parameter	Requirement Δ R ±% Limit	Typical	Test Method
Resistance	Within regulated tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/+125°C
Resistance to Solder Heat	±0.5%	±0.3%	260°C ± 5°C, 10 seconds +2/-0 seconds
Rapid Change of Temperature	±0.5%	±0.4%	-55°C (15 minutes), +150°C (15 minutes), 1000 cycles
Moisture Resistance	±0.5%	±0.1%	MIL-STD-202, Method 106, 0% power, 7a and 7b not required
Biased Humidity	±0.5%	±0.1%	85°C ± 2°C, 85% RH, 1000 hours, 10% bias
Endurance (Ambient Temp.)	±1.0%	±0.3%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1.0%	±0.6%	±170°C, 1000 hours

2/08/22