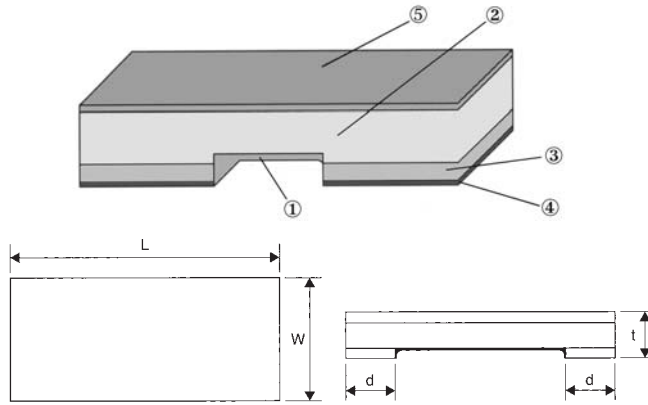
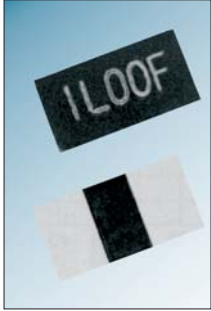


**METAL PLATE
MILLIOHM
TLR**

NEW



STRUCTURE

- 1 Protective bottom coating
- 2 Resistive element (Cu-Ni alloy)
- 3 Electrode
- 4 Solder
- 5 Protective top coating:
2B, 3A & 3AW (1mΩ only)

IDENTIFICATION

PRODUCT CODE	COATING COLOR	MARKING
TLR 2B, 3A	Black	Clear
TLR 2H, 3AW	Grey	(resistance and tolerance)

Products with Pb-free terminations meet RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

TLR	3A	D	TE	2L00	F
PRODUCT CODE	POWER RATING 2B: 0.5W 2H, 3A: 1W 3AW: 2W	TERMINAL MATERIAL D: SnAgCu L: Sn/Pb (only 3A)	TAPING* TD: 4mm pitch punch paper TE: 4mm pitch plastic embossed BK: Bulk *Please see "PACKAGING"	NOMINAL RESISTANCE F: 4 digits J: 3 digits	RESISTANCE TOLERANCE F: ± 1% J: ± 5%

FEATURES

- Ultra low resistances (1 mΩ ~)
- Suitable for large current detecting
- Ultra low height with a thickness of 0.6 mm
- Suitable for use in small equipment
- Non-inductive type
- Excellent high frequency characteristics
- Automatic mounting machine is applicable
- Ideal for use in DC-DC converter, as current detection for CPU's and in inverter power supplies
- Meets or exceeds IEC 60115-1, JIS C 5201-1
- Suitable for reflow soldering
- Rated ambient temperature: +70°C
- Operating temperature range: -65°C ... +170°C (+155°C)

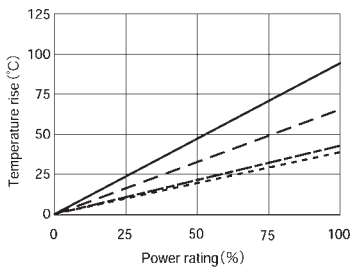
DIMENSIONS (mm)

TYPE	RESISTANCE (Ω)	L	W	d	t		
TLR 2B	2m, 3m, 4m, 5m, 6m, 8m, 10m, 11m, 12m, 13m, 15m, 16m, 18m, 20m	3.2 ± 0.2	1.6 ± 0.2	0.5 ± 0.2	0.6 ± 0.2		
	TLR 2H					2m, 3m, 4m, 5m, 6m	1.5 ± 0.2
						7m, 8m, 9m, 10m	0.5 ± 0.2
TLR 3A	1m	6.35 ± 0.25	3.18 ± 0.25	2.20 ± 0.25	0.62 ± 0.25		
	2m			1.20 ± 0.25			
	3m			1.85 ± 0.25			
	4m			1.20 ± 0.25			
TLR 3AW	1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m	6.35 ± 0.25	3.18 ± 0.25	2.2 ± 0.25	0.6 ± 0.25		
	10m			1.2 ± 0.25			
				0.77 ± 0.25			

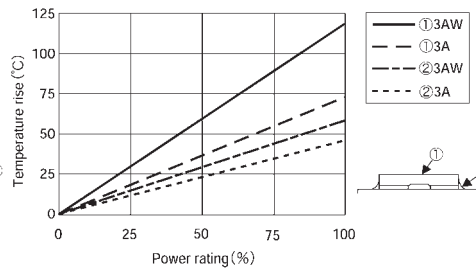
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

TEMPERATURE RISE

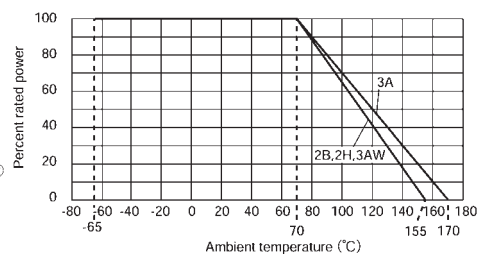
TLR2B/2H 8mΩ



TLR3A/3AW 4mΩ



DERATING CURVE



Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

RATING

SIZE	TYPE	T.C.R. (ppm/K)	POWER RATING*	RESISTANCE RANGE (Ω)	RESISTANCE TOLERANCE	OPERATING TEMP. RANGE
NEW 1206	TLR 2B	± 150	0.5W	2m, 3m, 4m, 5m, 6m, 8m, 10m, 11m, 12m, 13m, 15m, 16m, 18m, 20m	F (±1%) J (±5%)	-65°C... +155°C
NEW 2010	TLR 2H	± 150	1.0W	2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m		
2512	TLR 3A	± 150	1.0W	1m, 2m		
NEW	TLR 3AW	± 200	2.0W	3m, 4m		-65°C... +170°C
		± 150		1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 10m		-65°C... +155°C

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