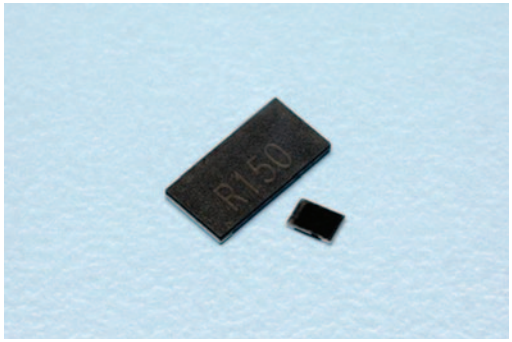
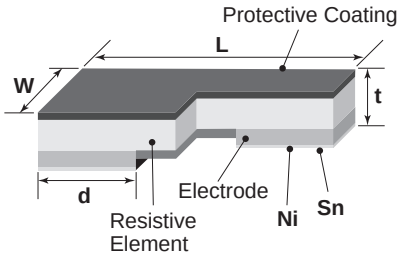


features

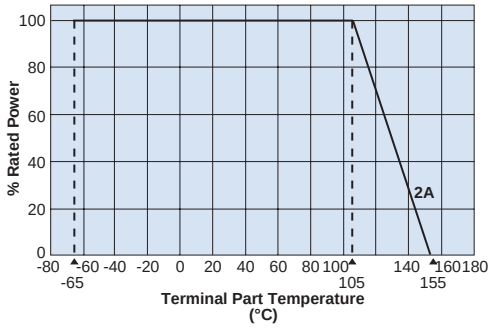
- SMD type of small size, metal plate low resistance resistor for current detection
- Low height suitable for use of small equipment such as mobile phone
- High reliability and performance with T.C.R ±100×10^{-6}/K
- Suitable for reflow soldering (Not suitable for flow soldering)
- Products meet EU RoHS requirements
- AEC-Q200 Qualified

dimensions and construction



Size Code	Resistance	Dimensions inches (mm) L	W	d	t
TLR2A (0805)	2mΩ	.079±.008 (2.00±0.20)	.049±.008 (1.25±0.20)	.024±.008 (0.60±0.20)	.012±.006 (0.30±0.15)
	3mΩ			.024±.008 (0.60±0.20)	.010±.006 (0.25±0.15)
	4mΩ			.018±.008 (0.45±0.20)	
	5mΩ			.026±.008 (0.65±0.20)	.012±.006 (0.30±0.15)
	6mΩ			.022±.008 (0.55±0.20)	
	7mΩ			.020±.008 (0.50±0.20)	
	8mΩ			.020±.008 (0.50±0.20)	.01±.006 (0.26±0.15)
	9mΩ			.018±.008 (0.45±0.20)	
	10mΩ			.014±.008 (0.35±0.20)	

Derating Curve



When the terminal part temperature of the resistor exceeds the rated part temperature, the power shall be derated according to the derating curve.
For more details, please visit www.koaspeer.com and go to "Resources," then "Technical Information," and select "Derating Curves – Caution & Terms."

ordering information

TLR	2A	T	TD	10L0	J
Type	Power Rating	Termination Material	Packaging	Nominal Resistance	Resistance Tolerance
TLR	2A: 1W	T: Sn	TD: 4mm pitch punch paper	±1%: 4 digits All values less than 0.1Ω (100m) are expressed in mΩ with "L" as decimal Ex: 1mΩ = 1L00	F: ±1%

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

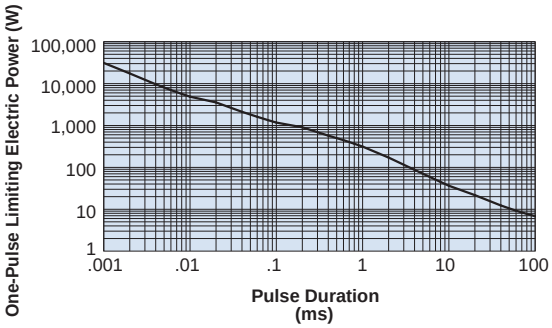
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

applications and ratings

Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Standard Resistance (Ω)	Resistance Tolerance	Rated Terminal Part Temperature	Operating Temperature Range
TLR2A	1W	±100	2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m, 10m	F: ±1%	105°C	-65°C to +155°C

environmental applications

One-Pulse Limiting Electric Power



Please ask us about the resistance characteristic of continuous applied pulse.

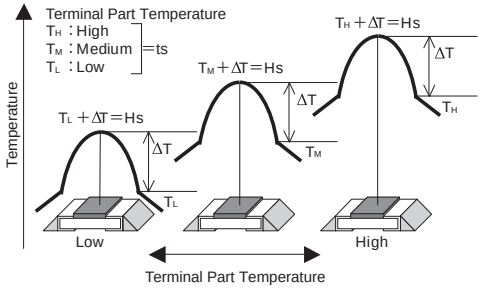
The pulse endurance values are not assured values, so be sure to check the products on actual equipment when you use them.

Thermal Resistance

Type	Resistance (Ω)	Rth (°C/W)
TLR2A	2m	26.1
	10m	54.7

Rth=(Hs-ts)/Power

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. Please refer to us before use.



The temperature of the resistor will increase the same T from the standard terminal part temperature regardless of the ambient temperature when the same power is applied. This is because there is hardly any heat dissipation from the resistor surface to the ambient air.

Performance Characteristics

Parameter	Requirement Δ R % Limit	Requirement Δ R % Typical	Test Method
Resistance	Within regulated tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/+125°C
Overload (Short time)	±1	±0.05	Rated power x 2.5 for 5 seconds
Resistance to Solder Heat	±1	±0.01	260°C ± 5°C, 10 ~ 12 seconds
Rapid Change of Temperature	±1	±0.2	-55°C (15 minutes), +150°C (15 minutes), 1000 cycles
Moisture Resistance	±1	±0.3	85°C, 85%RH, 1000 hours, 10% Bias
Endurance at 105°C and Less of Terminal Part Temperature	±1	±0.4	Terminal part temperature: 105°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Low Temperature Exposure	±1	±0.05	-65°C, 96 hours
High Temperature Exposure	±1 (2~4m, 7~10m) ±2 (5m, 6m)	±0.5 (2~4m, 7~10m) ±0.8 (5m, 6m)	155°C, 1000 hours