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
TLR2B	1/2W (.5W)	70°C	105°C	±50	2m,3m,4m,5m,6m,7m,8m, 9m,10m,11m,12m,13m, 15m,16m,18m,20m	F: ±1%	-65°C to +155°C** -65°C to +170°C**
				±75	1m,1.5m,2m,3m,4m,5m, 6m,7m,8m,9m,10m,11m, 12m,13m,15m,16m,18m,20m		
TLR2BN				±150	1m,1.5m,2m,3m,4m,5m, 6m,7m,8m,10m,11m, 12m,13m,15m,16m,18m,20m		
TLR2H	1W	70°C	105°C	±50	1m,2m,3m,4m,5m, 6m,7m,8m,9m,10m	F: ±1%	-65°C to +155°C** -65°C to +170°C**
				±75			
TLR3AW	2W	70°C	105°C	±50	2m,3m,4m,5m, 6m,7m,8m,9m,10m	F: ±1%	-65°C to +155°C**
				±75	0.5m,0.68m,0.75m,0.82m, 1m,1.5m,2m*,3m,4m, 5m,6m,7m,8m,9m,10m		
				±150			-65°C to +170°C**

* Contact factory for 2mΩ dimensions

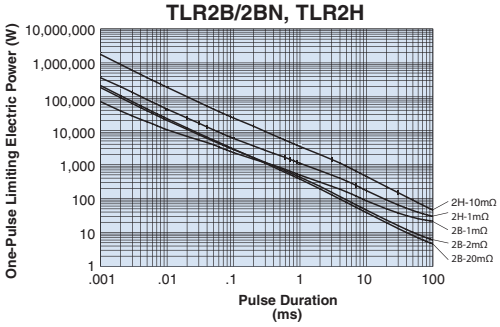
** Please reference High Temperature Performance Characteristics in the below table

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.

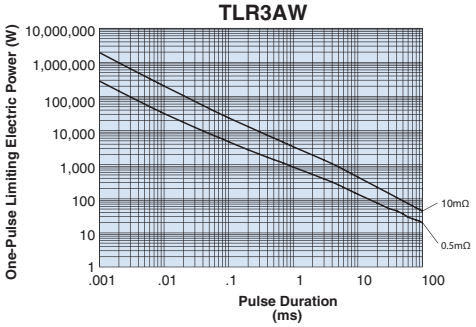
environmental applications

One-Pulse Limiting Electric Power

TLR2B/2BN, TLR2H



TLR3AW



The maximum applicable voltage is equal to the max. overload voltage.

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

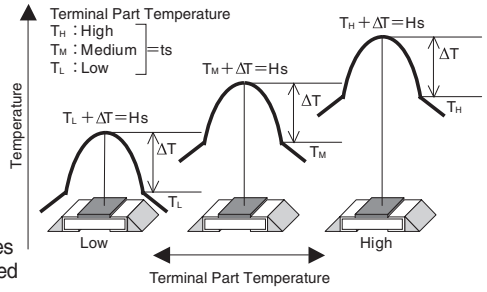
The pulse endurance values are not assured values, so be sure to check the products on actual equipment when you use them.

Thermal Resistance

Type	Size	Resistance (Ω)	Rth (°C/W)
TLR	2B 2BN	1m	7.2
		2m	18.3
		20m	116
	2H	1m	17
		10m	61.1
	3AW	0.5m	6
		10m	62

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 regardlless 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	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%	±155°C (2B, 2H, 3AW), 1000 hours
	±2.0%	—	±170°C (2B, 2H, 3AW), 1000 hours