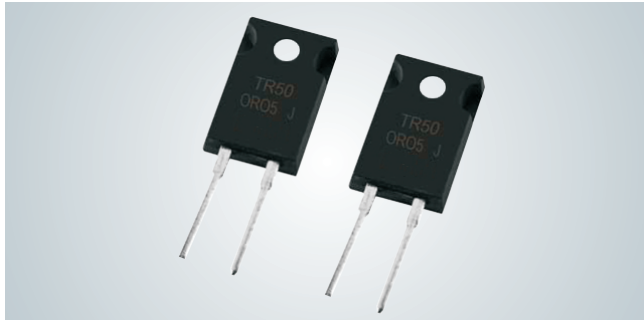


## TR 50-H Power Thick Film Resistor

Catalogue

- Feature
- Application
- Construction
- Dimensions
- Reference Standards
- Ordering Information
- Applications And Ratings
- Derating Curve
- Performance



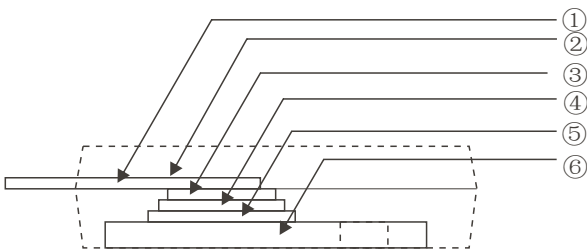
## Feature

- I At 25°C case temperature heat sink mounted
- II TO-220 style power package
- III Molded case for protection and easy to mount
- IV Electrically isolated case
- V Non-Inductive design

## Application

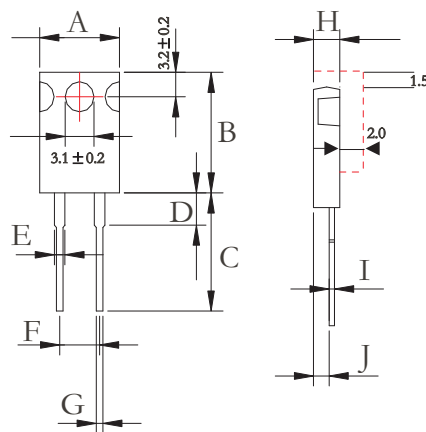
- I Switching Power Supplies
- II Snubbers Circuits
- III Automated Machine Controller
- IV RF Power Amplifiers
- V Low Energy Pulse Loading
- VI UPS
- VII Voltage Regulation

## Construction



①	Leads, Tin plated Cu
②	Mold, epoxy, UL94-V0
③	Conductor, Cu
④	Resistor, NiCr or RuO
⑤	Substrate, Alumina
⑥	Flange, Ni plated Cu

## Dimensions



Type	Power	Dimensions(mm)									
		A	B	C	D	E	F	G	H	I	J
TR50-H	50W	10 ± 0.5	16 ± 0.5	12.5 ± 1.5	3.5 ± 0.5	1.2 ± 0.2	5.08 ± 0.3	0.8 ± 0.1	3.2 ± 0.3	0.5 ± 0.1	1.8 ± 0.2

## Reference Standards

JISC 5201-1

## Ordering Information

Example:

TR	15	D	10R0	C2	B
(1)	(2)	(3)	(4)	(5)	(6)
Series Name	Power Rating	Resistance Tolerance	Resistance	T.C.R	Packaging

(1)Type:TR SERIES

(2)Power Rating: 50-H=50W

(3)Tolerance: D=  $\pm 0.5\%$ , F=  $\pm 1\%$ , J=  $\pm 5\%$ , K=  $\pm 10\%$

(4)Resistance Value:10R0=10 $\Omega$

(5)T.C.R: C2=  $\pm 50\text{ppm}/^\circ\text{C}$ , C1=  $\pm 100\text{ppm}/^\circ\text{C}$ , C=  $\pm 200\text{ppm}/^\circ\text{C}$  or  $\pm 300\text{ppm}/^\circ\text{C}$

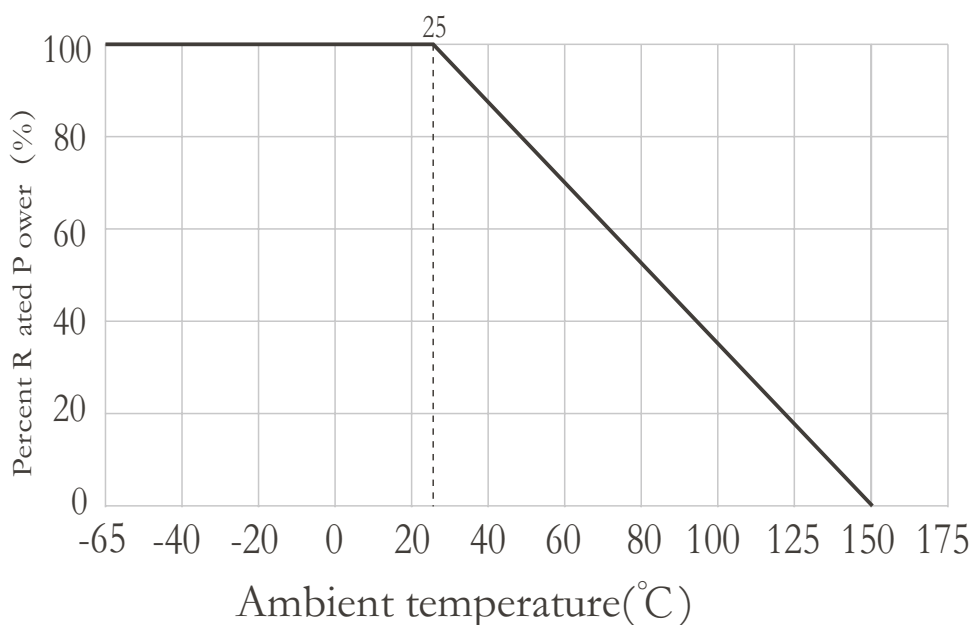
(6)Packaging:B=Box

Packaging : Plastic recloseablebags(MOQ : 100PCS)

## Applications And Ratings

Type	Power (25 $^\circ\text{C}$ )	Thermal resistance ( $^\circ\text{C}/\text{W}$ )	Resistance Range ( $\Omega$ )	Tolerance	T.C.R	Max working Voltage (V)	Climatic category
TR 50-H	50	5.0	0.1~1M $\Omega$	$\pm 0.5\%$ $\pm 1\%$ $\pm 5\%$ $\pm 10\%$	$\pm 50\text{ppm}/^\circ\text{C}$ $\pm 100\text{ppm}/^\circ\text{C}$ $\pm 200\text{ppm}/^\circ\text{C}$ $\pm 300\text{ppm}/^\circ\text{C}$	1000V	55/125/56

## Derating Curve



## Performance

Test Items	Performance Requirements	Test Methods(JIS C 5 201-1)
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	Referenced to 25°C, $\Delta R$ taken at +105°C
Short Time Overload	$\Delta R \pm 0.3\%$	2 times rated power with applied voltage not to exceed 1.5 times Maximum continuous operating voltage for 5 seconds
Load Life	$\Delta R \pm 1.0\%$	2,000 hours at rated power
Damp Heat with Load	$\Delta R \pm 0.5\%$	40 ± 2°C, 90~95% R.H. Max. working voltage for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Solderability	90% min. Coverage	245 ± 5°C for 3 seconds
Thermal Shock	$\Delta R \pm 0.3\%$	-65°C ~ 150°C, 100 cycles
Terminal Strength	$\Delta R \pm 0.2\%$	(Pull Test) 2.4N
Vibration, High Frequency	$\Delta R \pm 0.2\%$	20g peak