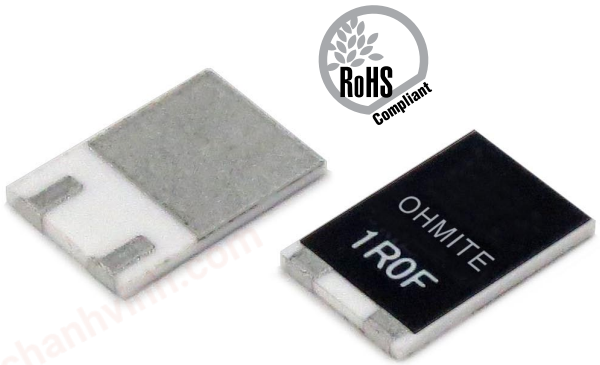
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TKH Series

45W TO-252 Thick Film Resistor



FEATURES

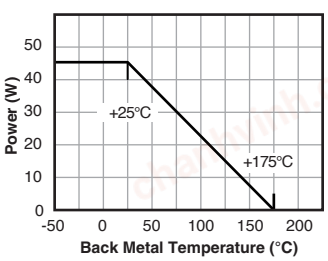
- Small size, low profile, surge capable film resistor
- -55°C to +175°C temperature range provides for automotive applications.
- Low thermal resistance under 3.0°C/W shows excellent cooling performance.
- Easy to replace D-PAK power resistor.
- Excellent rf characteristics for high speed pulse operation.
- Applications include snubber, gate control, bleeder, filter, rush current protection, PV, UPS and motor control inverters.

CHARACTERISTICS

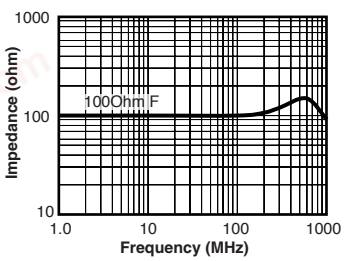
Rated Power	45W at -55°C to 25°C backing metal temperature; 1.0W attached on simple foot print.
Heat Resistance	3.0°C/W resistor to back metal
Resistance Range	0.02Ω-510kΩ; 0.02Ω-0.91Ω are available at 5% tol. only. E24 plus 2.5, 4.0, 5.0, 8.0, and 16
Tolerance	±1% (F)
Resistor Material	Thick Film
Capacitance	2.65 pF Equivalent parallel capacitance, typical
Inductance	14.65 nH Equivalent series inductance, typical
Operating Temp.	-55°C to+175°C
Max. Operating Current	10A
Max. Operating Volt.	less than 500V or $\sqrt{P \cdot R}$ P is rated power and R resistance

Test	Requirement	Method
Short Time Overload	50W	Rated power X 2.0 and 5 second at 25°C with heat-sink
TCR	100ppm/°C	10Ω to 51kΩ, around 100 ppm/°C under 9.1Ω
Withstanding Volt.	1500 VAC	Terminal and back metal, 60 seconds. 1mA
Load Life	±1.0%	25°C, 90 min. ON, 30 min. OFF, 1000h.
Humidity	±1.0%	40°C, 90-95%RH, DC 0.1W, 1000 hours.
Temp. Cycle	±0.25%	-55°C,30 min.,+155°C, 30 min., 5cycle
Soldering Heat	±0.1%	350 ±5°C, 3 seconds
Lead Solderability	Over 95% of surface	230° ±5°C, 3 seconds
Insulation Resistance	Over 1,000MΩ	Between terminals and back metal
Vibration	±0.25%	IEC60068-2-6
Weight	0.324 gram	

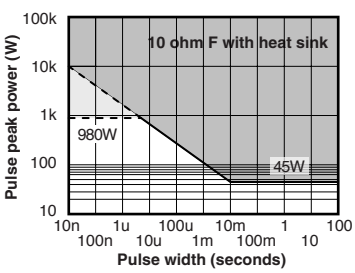
Derating



Frequency Characteristics

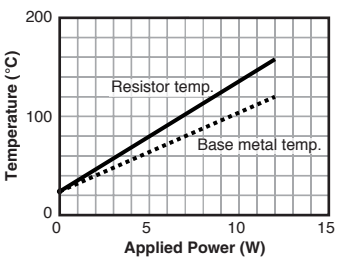


Pulse Energy Durability



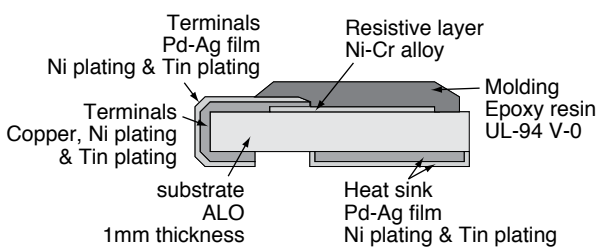
Tentative continuous-pulse power allowance at duty 0.01. Load life test will be necessary in actual equipments, because curve may be changed by resistance, repetition, duty and operating temperature.

Temperature Rise



Actual temperature rise for TKH that is jointed on a metal insulated circuit board of 47mm x 73mm x 1mm thick

Construction



(continued)

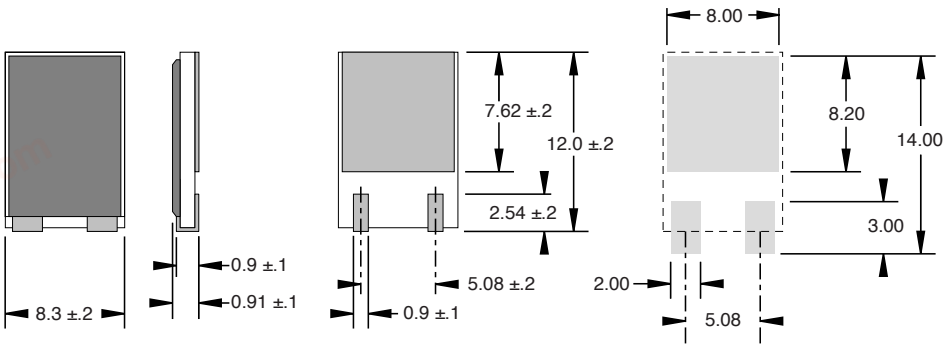
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TKH Series

45W TO-252 Thick Film Resistor

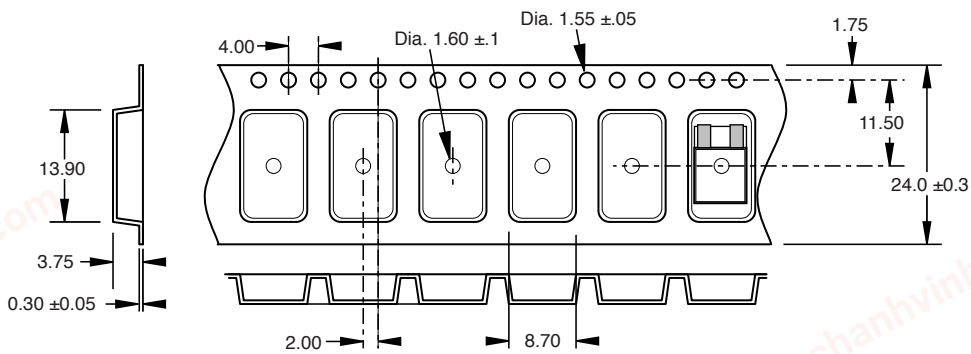
DIMENSIONS

(iin./mm)



Tape and reel

500pcs per reel
254mm reel size



ORDERING INFORMATION

RoHS Compliant

T K H 4 5 P R 0 5 0 J E - T R

Series	Package code	Ohms	Tolerance	Tape & reel

Standard Part Numbers

TKH45PR050JE-TR	TKH45P47R0FE-TR
TKH45PR100JE-TR	TKH45P50R0FE-TR
TKH45PR500JE-TR	TKH45P100RFE-TR
TKH45P1R00FE-TR	TKH45P150RFE-TR
TKH45P1R50FE-TR	TKH45P200RFE-TR
TKH45P2R00FE-TR	TKH45P300RFE-TR
TKH45P5R00FE-TR	TKH45P500RFE-TR
TKH45P7R50FE-TR	TKH45P1K00FE-TR
TKH45P10R0FE-TR	TKH45P2K50FE-TR
TKH45P20R0FE-TR	TKH45P5K00FE-TR
TKH45P25R0FE-TR	