



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



TKH Series

45W TO-252 Thick Film Resistor



FEATURES

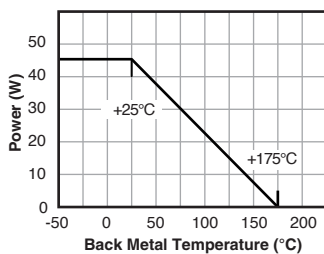
- Small size, low profile, surge capable film resistor
- -55°C to +175°C temperature range provides for automotive applications.
- Low thermal resistance under 3.0°C/W shows excellent cooling performance.
- Easy to replace D-PAK power resistor.
- Excellent rf characteristics for high speed pulse operation.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

CHARACTERISTICS

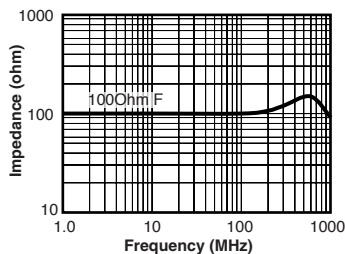
Rated Power	45W at -55°C to 25°C backing metal temperature; 1.0W attached on simple foot print.
Heat Resistance	3.0°C/W resistor to back metal
Resistance Range	0.02Ω-510kΩ; 0.02Ω-0.91Ω are available at 5% tol. only. E24 plus 2.5, 4.0, 5.0, 8.0, and 16
Tolerance	±1% (F)
Resistor Material	Thick Film
Capacitance	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	

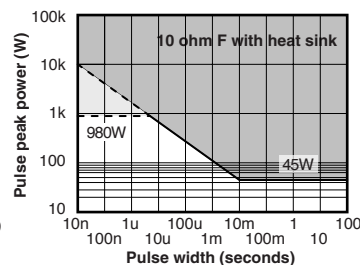
Derating



Frequency Characteristics

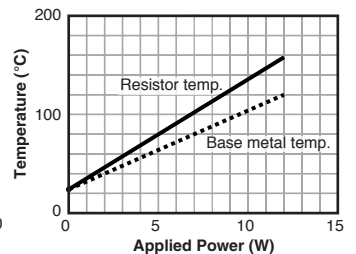


Pulse Energy Durability



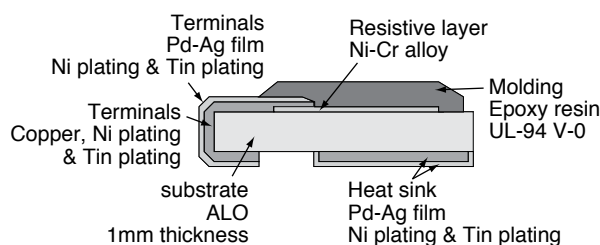
Tentative continuous-pulse power allowance at duty 0.01. Load life test will be necessary in actual equipments, because curve may be changed by resistance, repetition, duty and operating temperature.

Temperature Rise



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

Construction



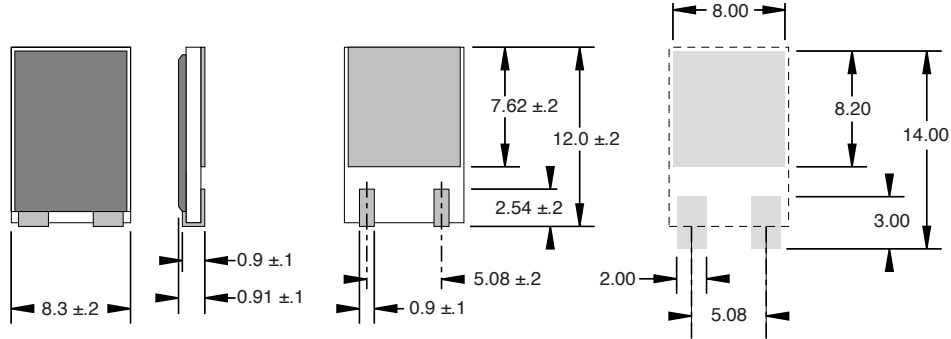
(continued)

TKH Series

45W TO-252 Thick Film Resistor

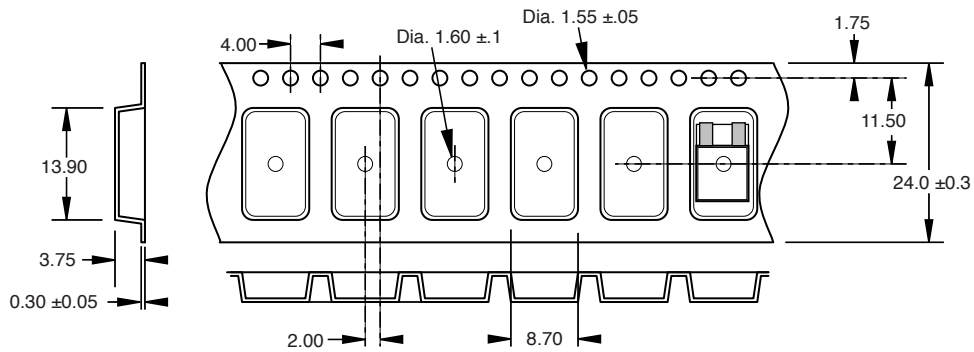
DIMENSIONS

(in./mm)



Tape and reel

1000pcs per reel
254mm reel size



ORDERING INFORMATION

RoHS Compliant

TKH45PR050JE-TR

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	