



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

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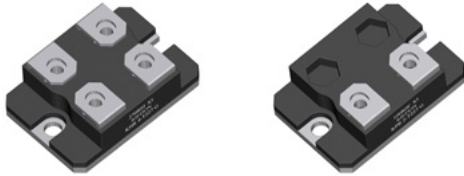
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KPR KPN 2/4-T227 KHR KHN 2/4-T227

Power Resistors



- Resistances from 0.05Ohm to 5MOhms
- Power Rating to 200Watt
- Resistance Tolerances to $\pm 1\%$
- TCR to $\pm 50\text{ppm}/^\circ\text{C}$
- TO-227 (TO-238) Housing

SPECIFICATIONS

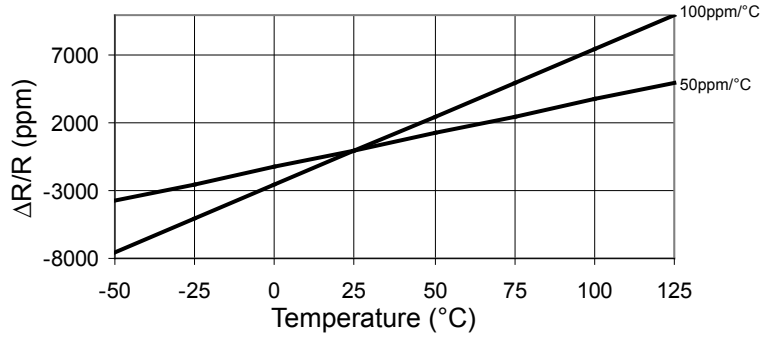
Type	KPR 2/4-T227 KPN 2-T227	KHR 2/4-T227 KHN 2-T227
Resistance Range	0.05 Ohms to 5 MOhms	
Power rating with heatsink	100 W	200 W
Thermal Resistance Rthj-c	0.7 $^\circ\text{C}/\text{W}$	0.35 $^\circ\text{C}/\text{W}$
Tolerances from 0.05 Ohms from 0.1 Ohms	2% / 5% / 10% 1% / 2% / 5% / 10%	
Stability	1%	
Temperature Coefficient 0.05 to 0.099 Ohms 0.1 to 5 MOhms	$\pm 300\text{ ppm}/^\circ\text{C}$ $\pm 100\text{ ppm}/^\circ\text{C}$ upon request $\pm 50\text{ ppm}/^\circ\text{C}$	
Voltage Proof	1.5 kVDC or 2.5 kVDC (upon request)	
Inductivity	$\leq 50\text{ nH}$	
Capacity	$\leq 35\text{ pF}$	
Max. Voltage depending on resistance value		
Operating Temperature Range	-55 to 155 $^\circ\text{C}$	
Resistor Material	Thick Film	
Substrate	Al_2O_3	
Housing	Epoxy or Plastic	
Connector Material	Cu tinned	
Terminals	2 or 4	
Max. Torque backplate terminals	1.5 Nm 1.3 Nm	

Ordering Information

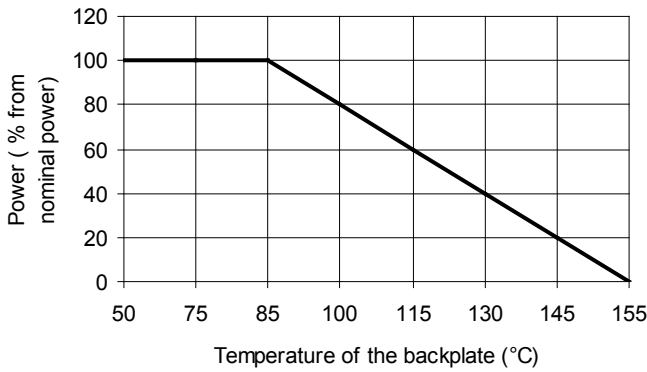
Part Description: Part Type - Resistance - Tolerance
KHR 2-T227 10 Ohms 5%

SPECIFICATIONS (continued)

Temperature Coefficient



Derating

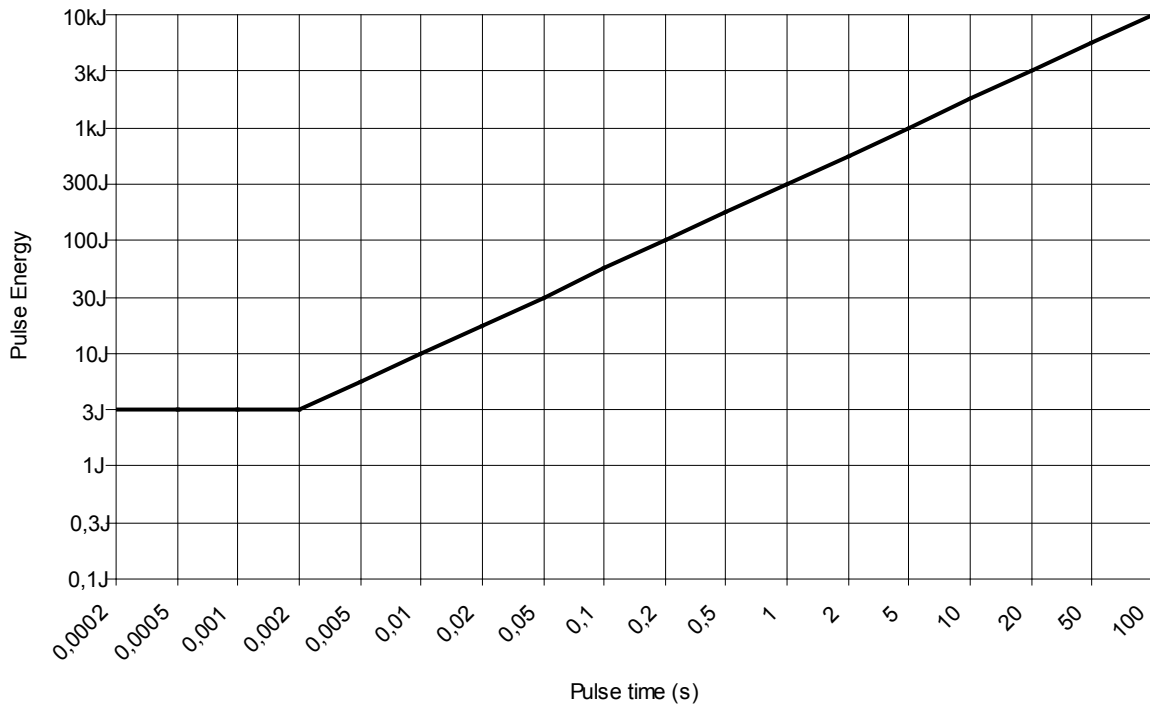


Power Rating Notes -
 The KPR / KPN / KHR / KHN Series Resistors must be attached to a suitable heatsink. The maximum internal resistor temperature is 155°C.
 To specify an appropriate heatsink use the following formula :

$$R_{\theta H} = \frac{T_{MAX} - (P \times R_{\theta R}) - T_A}{P}$$

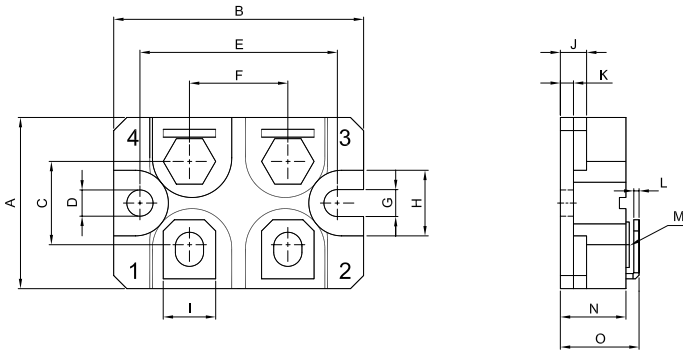
Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (K/W)
 $R_{\theta R}$ = Thermal Resistance of Resistor (K/W)
 T_{MAX} = Maximum Temperature of Resistor
 T_A = Ambient Temperature of Heatsink (°C)
 P = Power Through Resistor (W)

Pulse Stability

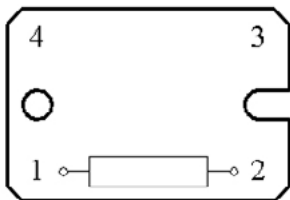


SPECIFICATIONS (continued)

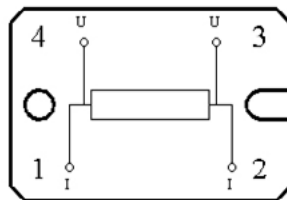
Dimensions and Attachment Variations



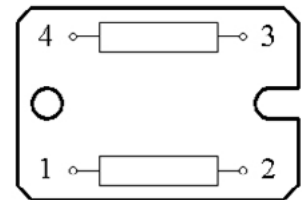
Dimension	mm	tol. (±mm)	inches	tol. (±inches)
A	26	0.5	1.02	0.020
B	38	0.5	1.50	0.020
C	12.7	0.2	0.50	0.008
D	4	0.2	0.16	0.008
E	30	0.2	1.18	0.008
F	15	0.2	0.59	0.008
G	4.1	0.2	0.16	0.008
H	10	0.2	0.39	0.008
I	8	0.2	0.31	0.008
J	4	0.2	0.16	0.008
K	2	0.2	0.08	0.008
L	0.8	0.1	0.03	0.004
M	M4		M4	
N	10	0.2	0.39	0.008
O	11.9	0.2	0.47	0.008



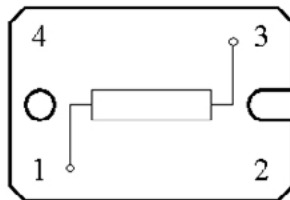
KPR/KHR 2-T227



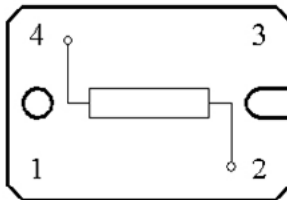
KPR/KHR 4-T227



KPN/KHN 2-T227



KPR/KHR 2-T227 dia1



KPR/KHR 2-T227 dia2