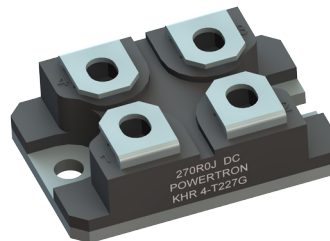
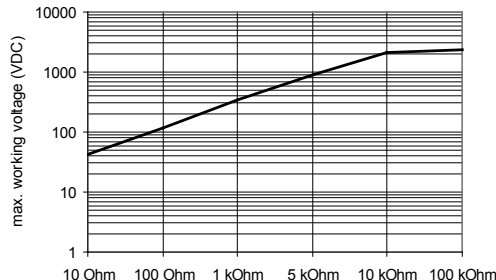


FEATURES

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



Available
RoHS*
COMPLIANT

TABLE 1 – SPECIFICATIONS		KPR 4-T227	KHR 4-T227
TYPE		KPR 4-T227	KHR 4-T227
Resistance Range		0.05 Ohms to 5 MOhms	
Power Rating	With heatsink	100 W	200 W
Tolerances from 0.05 Ohms from 0.1 Ohms		2% / 5% / 10% 1% / 2% / 5% / 10%	
Thermal Resistance		0.7 K/W	0.35 K/W
Stability (1000h)		1%	
Temperature Coefficient 0.05 to 0.099 Ohms 0.1 to 5 MOhms		$\pm 300\text{ ppm/K}$ $\pm 100\text{ ppm/K}$ upon request $\pm 50\text{ ppm/K}$	
Voltage Proof		Standard 1.5 kVDC / upon request 2.5 kVDC	
Inductivity		$\leq 50\text{ nH}$	
Capacity		$\leq 35\text{ pF}$	
Max. Voltage depending on resistance value			
Operating Temperature Range		-40 to 155°C	
Resistor Material		Thick Film	
Substrate		Al ₂ O ₃	
Housing		Plastic	
Connector Material		Cu / tinned	
Terminals		4 (Standard contact G - bended)	
Max. Torque backplate terminals		1.5 Nm 1.3 Nm	

ORDERING INFORMATION

Part Number - Resistance - Contact - Tolerance

Standard: KHR 4-T227 10R000 G 5%
Special: KHR 4-T227 5K000 G 5% 2.5 kVDC

FIGURE 1 – TEMPERATURE COEFFICIENT

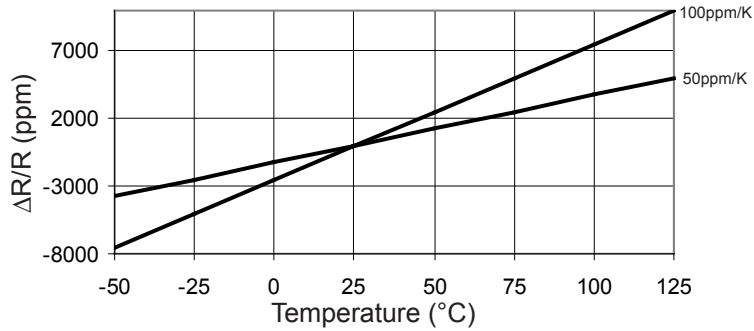
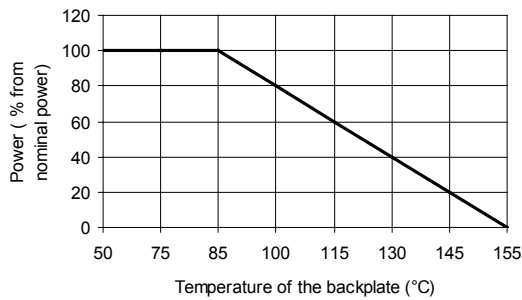


FIGURE 2 – DERATING



Power Rating Notes -

The KPR / KHR 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)

FIGURE 3 – PULSE STABILITY

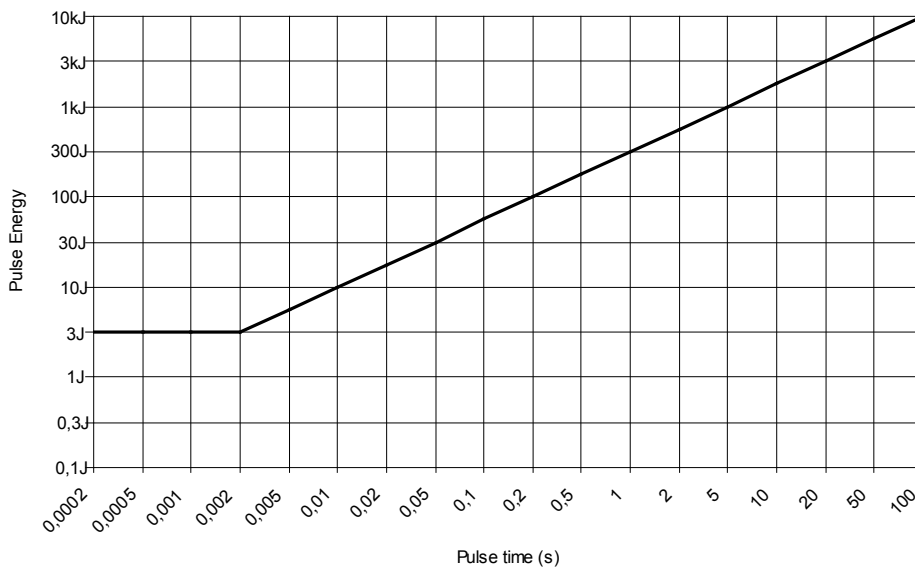
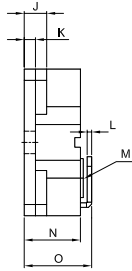
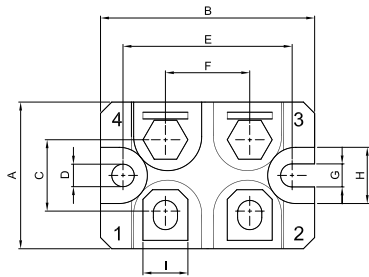
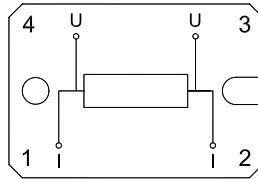


FIGURE 4 – DIMENSIONS in mm (inches)



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





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