

**FEATURES**

- Resistances from 0.001 to 0R005 Ohms
- Power Rating to 50Watt
- Resistance Tolerances to  $\pm 0.1\%$
- TCR to  $\pm 2\text{ppm/K}$
- Very Low Inductance
- Load Stability to 0.1%

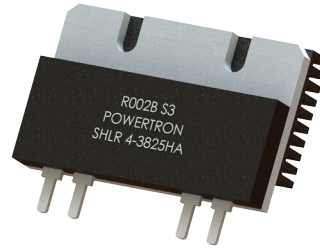
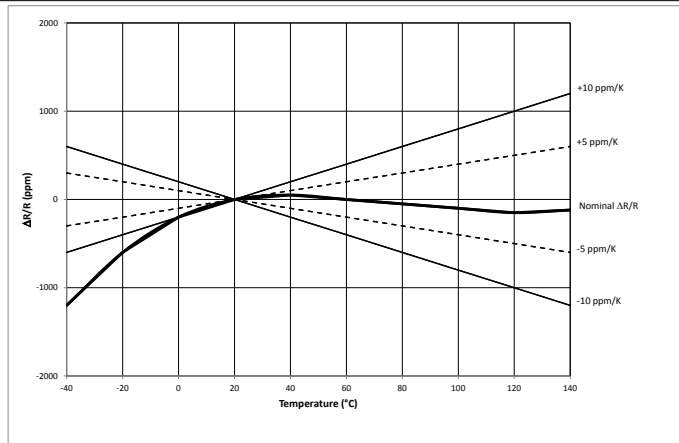


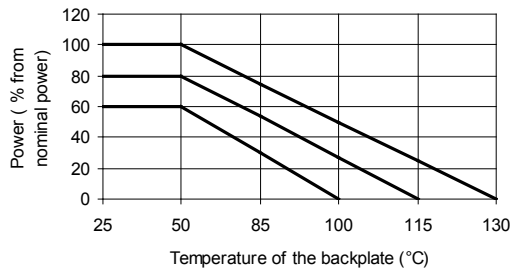
TABLE 1 – SPECIFICATIONS		
TYPE		SHLR 4-3825 SHLR 4-3825H
Resistance Range		0.001 to 0R005 Ohms
Power Rating	Free air 70°C	3W / 5W for 3825H
	With heatsink	50W
Tolerances		0.1% / 0.25% / 0.5% / 1% / 2% / 5%
Thermal Resistance		1.6 K/W
Stability (1000h)		0.1% / 0.2% / 0.5% (depends on stress)
Temperature Coefficient Standard (N) Option (M) Option (L) upon request for selected values		$\pm 10\text{ppm/K}$ (20 to 60°C) $\pm 5\text{ppm/K}$ (20 to 60°C) $\pm 2\text{ppm/K}$ (20 to 60°C)
Voltage Proof		500 VDC
Maximum Current		150A
Thermal EMF		< 1 $\mu\text{V/K}$
Operating Temperature Range		-40 to 130°C
Resistor Material		CuMnSn-Foil
Substrate		Anodized aluminium
Housing		Epoxy
Connector Material		Cu / tinned
Terminals		4
Max. Torque		1 Nm

ORDERING INFORMATION
Part Number - Resistance - Contact - Tolerance - TCR
SHLR 4-3825 0R001 A 0.1% M

**FIGURE 1 – TEMPERATURE COEFFICIENT**



**FIGURE 2 – DERATING**



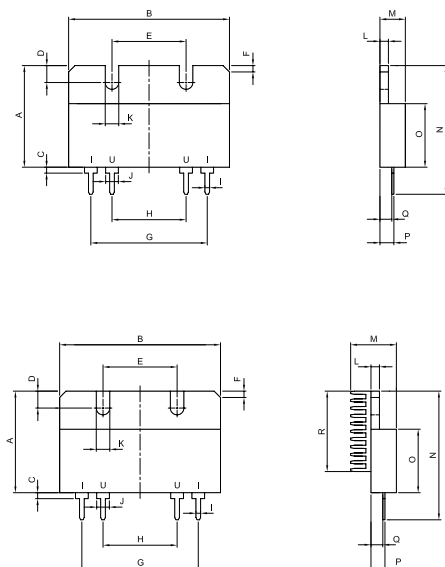
**Power Rating Notes -**

The SHLR Series Resistors must be attached to a suitable heat-sink. The maximum internal resistor temperature is 130°C. To specify an appropriate heatsink use the following formula :

$$R_{0H} = \frac{T_{MAX} - (P \times R_{0R}) - T_A}{P}$$

Where:  $R_{0H}$  = Thermal Resistance of Heatsink ( K/W )  
 $R_{0R}$  = 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 – DIMENSIONS** in mm (inches)



Dimension		A-contact	K-contact
A ±0.2 (±0.008)		24.00 (0.94)	
B ±0.3 (±0.012)		38.00 (1.50)	
C ±0.1 (±0.004)		1.40 (0.06)	
D ±0.1 (±0.004)		4.00 (0.16)	
E ±0.2 (±0.008)		17.50 (0.69)	
F ±0.1 (±0.004)		1.5x45° (0.06x45°)	
G ±0.2 (±0.008)		27.50 (1.08)	
H ±0.2 (±0.008)		17.50 (0.69)	
I ±0.1 (±0.004)		1.50 (0.06)	1.10 (0.04)
J ±0.1 (±0.004)		3.00 (0.12)	
K ±0.1 (±0.004)		3.20 (0.13)	
L ±0.1 (±0.004)		2.00 (0.08)	
M ±0.2 (±0.008)	Standard	6.00 (0.24)	
M ±0.2 (±0.008)	Variant H	10.80 (0.43)	
N ±0.4 (±0.016)		30.40 (1.20)	
O ±0.2 (±0.008)		15.00 (0.59)	
P ±0.3 (±0.012)	R > 0R001	3.60 (0.14)	3.30 (0.13)
	R ≤ 0R001	4.10 (0.16)	----
Q ±0.3 (±0.012)	R > 0R001	2.80 (0.11)	
	R ≤ 0R001	3.30 (0.13)	
R ±0.2 (±0.008)		19.00 (0.75)	



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