

chip type power shunt resistor



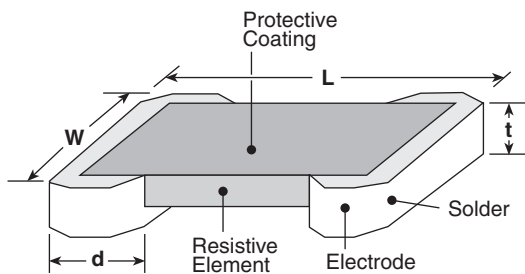
features

- Smooth current flow, suitable for large current detecting
- Easy to absorb the thermal expansion, because of KOA's original terminal structure
- Low height suitable for use of thin modules
- Automatic mounting machines are applicable
- Products with lead-free terminations meet EU RoHS and China RoHS requirements
- AEC-Q200 Qualified

current sense



dimensions and construction



Type (Inch Size Code)	Resist. (Ω)	Dimensions inches (mm)			
		L	W	d	t
PSB (4033)	0.2m			.150 \pm .010 (3.8 \pm 0.25)	.043 \pm .010 (1.1 \pm 0.25)
	0.75m	.394 \pm .010 (10.0 \pm 0.25)	.331 \pm .010 (8.4 \pm 0.25)	.138 \pm .010 (3.5 \pm 0.25)	.026 \pm .010 (0.65 \pm 0.25)
	1.0m			.118 \pm .010 (3.0 \pm 0.25)	

ordering information

PS	B	T	TEB	1L00	F
Type	Power Rating	Termination Material	Packaging	Nominal Resistance	Tolerance
	B: New 12.5W: 0.2m Ω 6W: 0.75m Ω , 1m Ω	T: Sn	TEB: Embossed plastic	All values less than 0.1 Ω (100m Ω) are expressed in m Ω with "L" as decimal Ex: 0.75m Ω = L750 1m Ω = 1L00	F: \pm 1%

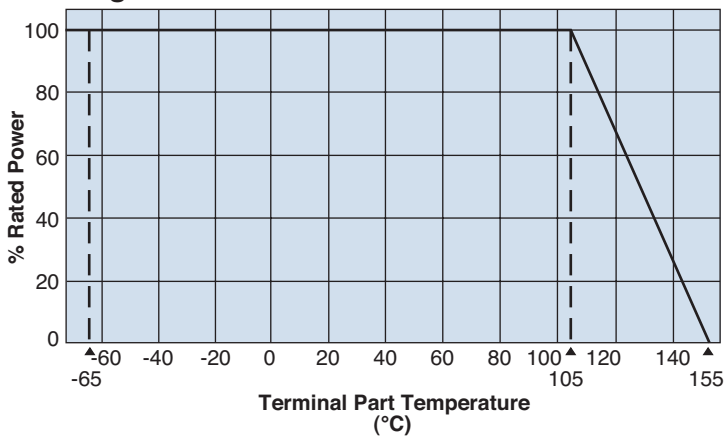
For further information on packaging, please refer to Appendix A.

applications and ratings

Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range	Resistance Tolerance	Rated Terminal Part Temperature	Operating Temperature Range
PSB	6W	±75	0.75mΩ, 1mΩ	F: ±1%	+105°C	-65°C to +155°C
	New 12.5W	±100	0.2mΩ			

environmental applications

Derating Curve



For resistors operated at a terminal part temperature of described for each size or above, a power rating shall be derated in accordance with the derating curve. Please refer to "Introduction of the derating curve based on the terminal part temperature" in the beginning of our catalog before use.

Performance Characteristics

Parameter	Requirement $\Delta R \pm\%$		Test Method
	Limit	Typical	
T.C.R.	Within specified T.C.R.	—	+25°C/+100°C
Overload (Short time)	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.1%	0.2m: 35W for 5 seconds Rated power x 2.5 for 5 seconds Use our designated aluminum circuit board & heat sink
Resistance to Solder Heat	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.2%	0.75m, 1m: 260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.1%	0.2m: -55°C (30 minutes), +125°C (30 minutes), 1,000 cycles 0.75m, 1.0m: -40°C (30 minutes), +125°C (30 minutes), 1,000 cycles
Moisture Resistance	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.1%	85°C ± 2°C, 85% RH, 1000 hours, 10% Bias
Endurance at 105°C and Less of Terminal Part Temperature	±1.0%	±0.1%	Terminal part temperature: 105°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle. Use our designated aluminum circuit board
Low Temperature Exposure	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.1%	-65°C, 96 hours
High Temperature Exposure	±1%	±0.1%	+155°C, 1,000 hours