KOA SPEER ELECTRONICS, INC.

PSB

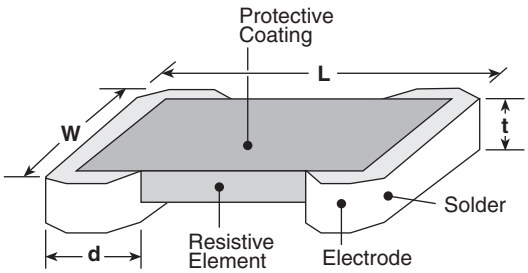
chip type power shunt resistor

EU RoHS COMPLIANT

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
- Marking: Black body color
- Products with lead-free terminations meet EU RoHS and China RoHS requirements
- AEC-Q200 Qualified

dimensions and construction



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

ordering information

New Part #

PS	B	T	TEB	1L00	F
Type	Power Rating	Termination Material	Packaging	Nominal Resistance	Tolerance
	B: **New** 7W: 0.2mΩ 6W: 0.75mΩ, 1mΩ	T: Sn	TEB: Embossed plastic	All values less than 0.1Ω (100mΩ) are expressed in mΩ with "L" as decimal Ex: 0.75mΩ = L750 1mΩ = 1L00	F: ±1%

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

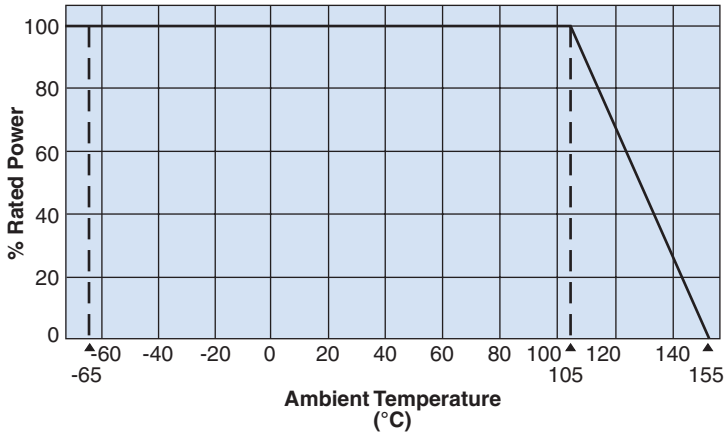
applications and ratings

Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range	Resistance Tolerance	Terminal Temperature Under a Rated Load	Operating Temperature Range
PSB	6W*	±75	0.75mΩ, 1mΩ	F: ±1%	+105°C and less	-65°C to +155°C
	NEW 7W*	±100	0.2mΩ			

* This power rating is guaranteed only for use on an aluminum substrate with the recommended solder pads shown in Appendix E of the part catalog or the "Pad Dimensions" related information on the KOA Speer web site. Please check with KOA before ordering or using.

environmental applications

Derating Curve



For resistors operated at a terminal temperature of 105°C or above, a power rating shall be derated in accordance with the above derating curve.

Performance Characteristics

Parameter	Requirement Δ R ±% Limit	Typical	Test Method
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%	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 Use our designated aluminum circuit board and heat sink
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 Temperature	±1.0%	±0.1%	Terminal temperature: 105°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle Use our designated aluminum circuit board
Low Temperature Operation	0.2mΩ: 1.0% 0.75mΩ, 1.0mΩ: ±0.5%	±0.1%	-65°C, 96 hours. Use our designated aluminum circuit board
High Temperature Exposure	±1%	±0.1%	+155°C, 1,000 hours. Use our designated aluminum circuit board

Mouser Electronics

Authorized Distributor

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KOA Speer:

PSBTTEBL750F PSBTTEB1L00F