KOA SPEER ELECTRONICS, INC.

LR72A, B, C

metal plate current sense resistors

EU RoHS COMPLIANT

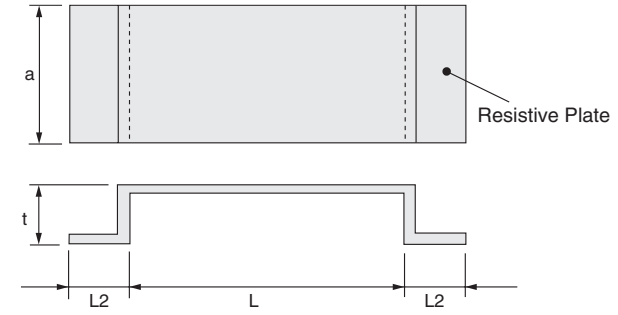
current sense

features

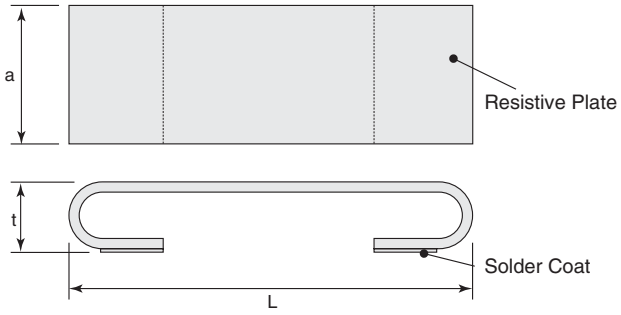
- Superior thermal expansion cycling
- Inductance less than 10nH
- Solderable pads
- Lead flexible for thermal expansion
- Products with lead-free terminations meet EU RoHS and China RoHS requirements

dimensions and construction

LR72A
LR72B



LR72C



Size Code	Dimensions inches (mm)			
	L	L2 $^{+0.1}_{-.02}$	W	t
LR72A	.39±.004 (10.0±0.1)	.079 (2.0)	.20±.008 (5.2±0.2)	.079 (2 Max.)
LR72B	.39±.004 (10.0±0.1)	.079 (2.0)	.118±.008 (3.0±0.2)	.079 (2 Max.)
LR72C	.44±.016 (11.2±0.4)	—	.126±.016 (3.2±0.4)	.137±.016 (3.5±0.4)

ordering information

LR72	A	N	TED	2L5	J
Type	Size	Termination Material	Packaging	Nominal Resistance	Tolerance
	A B C	D: SnAgCu (LR72C only) N: CuNi (non-presolder) (LR72A, B only)	TED: LR72A, LR72B TEB: LR72C	2.5mΩ: 2L5 "L" indicates the decimal in milliohms	J: ±5%

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

6/21/22

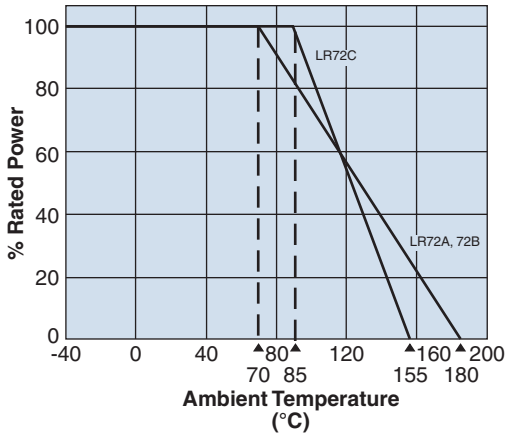
applications and ratings

Part Designation	Power Rating*	T.C.R. (ppm/°C) Max.	Standard Resistance**	Resistance Tolerance	Rated Ambient Temperature	Operating Temperature Range
LR72A	1/2W	±100	2.5mΩ, 5mΩ, 8mΩ	J: ±5%	+70°C	-40°C to +180°C
LR72B	1/4W		3mΩ			
LR72C	1W	±350	2mΩ, 3mΩ		+85°C	-40°C to +155°C

* Rated power in case of glass epoxy resin (FR-4) is used for the substrate material
** Please contact factory for custom made resistance values

environmental applications

Derating Curve



For resistors operated at an ambient temperature of 70°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
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/+125°C
Resistance to Soldering Heat	±2.0%	±1.6%	350°C ± 10°C, 3 seconds
Moisture Resistance	±5.0%	±4.5%	Power rating x 1/10, 40°C, 90% - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±5.0%	±4.5%	Rated voltage 70°C, 1000 hours 1.5 hr ON, 0.5 hr OFF cycle