



# Current Sense Resistors Selection Guide

**KOA SPEER ELECTRONICS, INC.**

KOA offers complete family of Current Sense Resistors capable of sensing large to small currents with ultra-low resistance

**Applications:** Current management sensor including charge/discharge of secondary batteries • Current control sensor of motors and DC/DC converters • Circuit protecting sensor by overcurrent detection

## Current Sense Resistors

### Current Ratings (A)

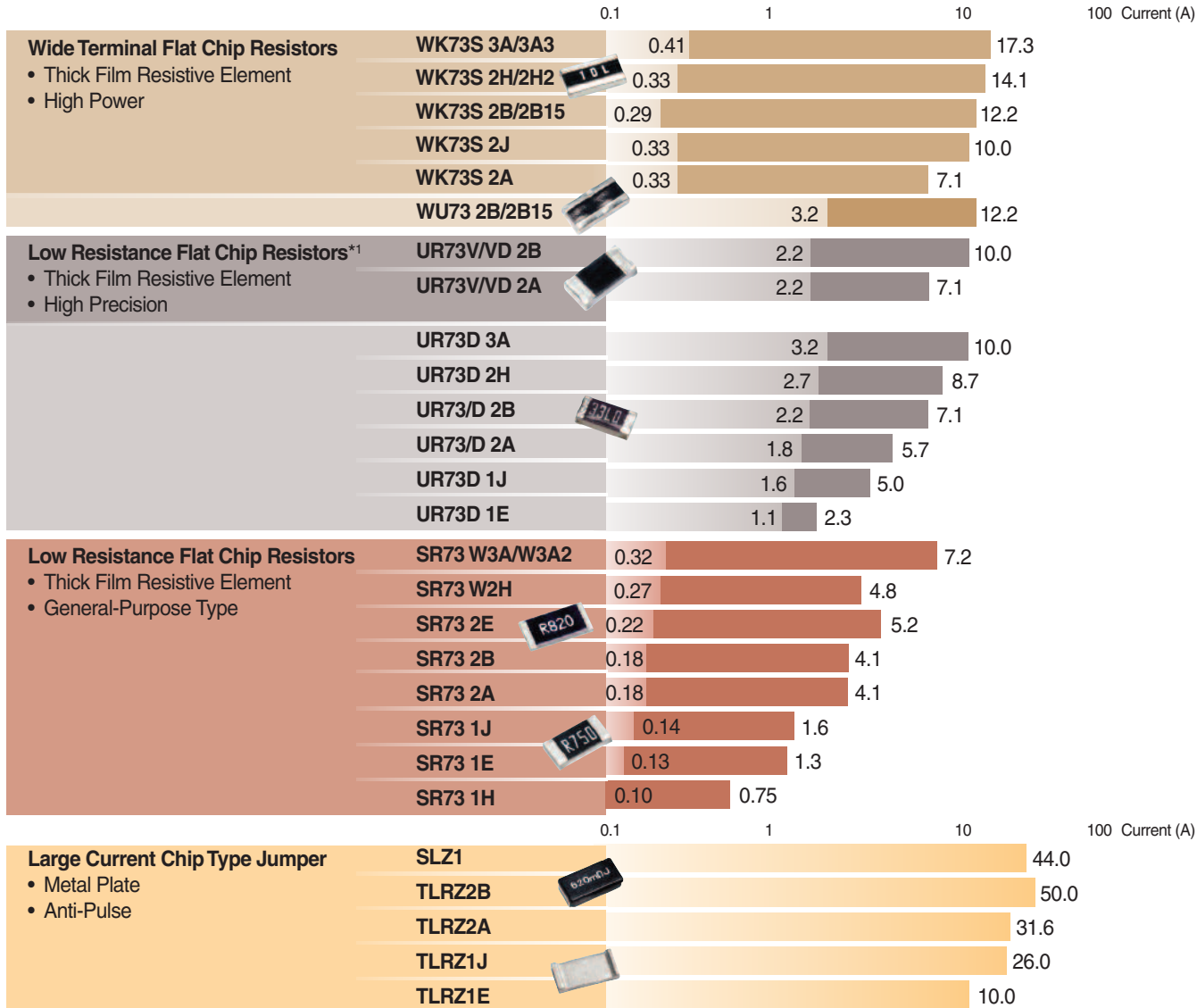
### Specifications

Category	Part Number	Current Rating (A)	Resistance	Rated Power	Size	Tolerance
Large Current Shunt Resistors	HSAN2P4022	300	50μΩ	50W	40x22mm	±5%
	HSAN2P4015	1000	100/200μΩ	36W/18W	40x15mm	±5%
Power Shunt Chip Resistors	PSJ2	54.8	0.2m~4mΩ	5W~12W	3920	±1%
	PSL2	126.5	0.2m~0.5mΩ	8W/9W	2512	±1%
	PSG4	89.4	0.5m/1mΩ	10W/8W	2725	±1%
	PSF4	54.8	0.5m/1mΩ	5W/3W	1216	±1%
Metal Plate Chip Type Low Resistance Resistors	TLR 3AP	17.3	0.5m~10mΩ	3W	2512	±1%
	TLR 3AW	14.1	0.5m~10mΩ	2W	2512	±1%
	TLR 2HW	14.1	0.5m~10mΩ	2W	2010	±1%
	TLR 2BP	8.7	0.5m~20mΩ	1.5W	1206	±1%
	TLR 2BW	7.1	0.5m~20mΩ	1W	1206	±1%
	TLR 2H	10.0	0.5m~10mΩ	1W	2010	±1%
	TLR 2A	10.0	2m~10mΩ	1W	0805	±1%
	TLR 2B/2BN	5.0	1m~20mΩ	0.5W	1206	±1%
	TLRH 3AP	5.8	6m~120mΩ	4~5W	2512	±1%
	TLRH 3AW	2.7	10m~270mΩ	2W	2512	±1%
Current Sense Chip Resistors	SLN5	5.9	3m~200mΩ	7W	4527	±0.5, 1.5%
	SLN3	5.2	5m~110mΩ	3W	4527	±0.5, 1.5%
	SLN2	3.2	5m~200mΩ	2W	4527	±0.5, 1.5%
	SL2	2.4	3m~360mΩ	2W	4527	±0.5, 1.2, 5%
	SLW1/SL1/TSL1	2.2	3m~200mΩ	1.5W/1W/1W	2512	±0.5, 1.2, 5%
	SLW07/SL07	2.7	5m~100mΩ	1W/0.75W	2010	±1.5%
Current Sense Chip Resistors (SLP)	SLP3AW	7.1	10m~40mΩ	2W	2512	±0.5, 1%
	SLP2HW	7.1	10m~40mΩ	2W	2010	±0.5, 1%
	SLP3A	3.2	10m~100mΩ	1W	2512	±0.5, 1%
	SLP2H	3.2	10m~100mΩ	1W	2010	±0.5, 1%

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### Current Ratings (A)



### Specifications

Resistance Range	Rated Power	Size (Inch)	Tolerance
10m~9.1Ω	1.5~2W/3W	0612	±0.5,1,5%
10m~9.1Ω	1W/2W	1020	±0.5,1,5%
10m~9.1Ω	0.75~1W/1.5W	0612	±0.5,1,5%
10m~9.1Ω	1W	1218	±0.5,1,5%
100m~9.1Ω	1W	0508	±0.5,1,5%
10m~100mΩ	1W/1.5W	0612	±1%
10m~100mΩ	0.5~0.75W	1206	±1%
10m~100mΩ	0.5W	0805	±1%
10m~100mΩ	1W	2512	±1%
10m~100mΩ	0.75W	2010	±1%
10m~100mΩ	0.5W	1206	±1%
10m~100mΩ	0.33W	0805	±1%
10m~100mΩ	0.25W	0603	±1%
24m~100mΩ	0.125W	0402	±1%
39m~10Ω	1W/2W	2512	±0.5,1,2,5%
33m~10Ω	0.75W	2010	±0.5,1,2,5%
24m~10Ω	0.5~0.66W	1210	±0.5,1,2,5%
30m~10Ω	0.33~0.5W	1206	±0.5,1,2,5%
30m~10Ω	0.33~0.5W	0805	±0.5,1,2,5%
100m~10Ω	0.2~0.25W	0603	±0.5,1,2,5%
100m~10Ω	0.166W	0402	±0.5,1,2,5%
180m~10Ω	0.1W	0201	±0.5,1,2,5%
Resistance Range	Rated Current	Size (Inch)	
Max. 0.5mΩ	44A	2512	
Max. 0.2mΩ	50A	1206	
Max. 0.2mΩ	31.6A	0805	
Max. 0.2mΩ	26A	0603	
Max. 0.5mΩ	10A	0402	

- This selection guide plots the current value calculated from (Power rating÷upper or lower limit of resistance). Please build the design considering heat dissipation.
- This is the guideline to select products by current value. Please confirm product specification for actual design and selecting products and use the products based on the precautions to use.
- Please confirm our catalog or delivery specification for the details of each product.

\*1 UR73/UR73D is only applied for car accessories as automotive use. Please ask us for details.