



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

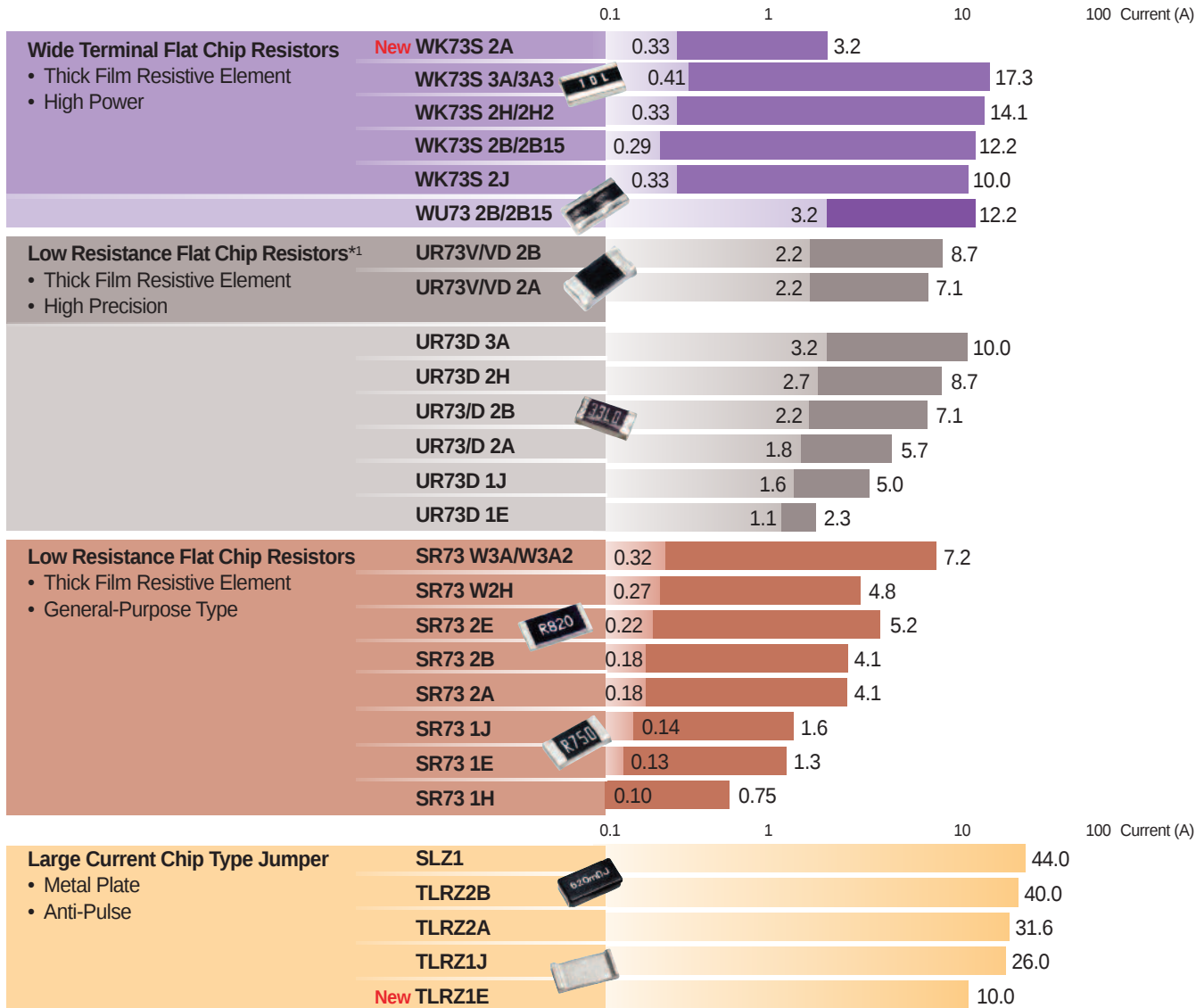
		Current Ratings (A)				Specifications			
		1	10	100	1000	Resistance	Rated Power	Size	Tolerance
Large Current Shunt Resistors • Metal Plate Resistive Element • Large Current, High Precision	HSAN2P4015	600				0.1m/0.2mΩ	18W/36W	40x15mm	±5%
Power Shunt Chip Resistors • Metal Plate Resistive Element • Large Current, High Precision	New PSJ2	0.1	1	10	100	Current (A)			
					54.8	244.9			
	New PSL2				126.5	212.1			
	PSG4				89.4	141.4			
	PSF4				54.8	100.0			
	PSB				77.5	250			
	PSE				50.0	100.0			
	PSI				27.4	31.6			
Metal Plate Chip Type Low Resistance Resistors • Metal Plate Resistive Element • High Precision	TLR 3AP				17.3	77.5			
	TLR 3AW				14.1	63.2			
	TLR 2HW				14.1	63.2			
	TLR 2BP				8.7	54.8			
	TLR 2BW				7.1	44.7			
	TLR 2H				10.0	31.6			
	TLR 2A				10.0	22.4			
	TLR 2B/2BN				5.0	22.4			
	TLR 1E				4.5				
	TLRH 3AP				5.8	28.9			
	TLRH 3AW				2.7	14.1			
	TLRH 2A				1.6	7.1			
Current Sense Chip Resistors • Metal Plate Resistive Element • Mold Package • High Reliability	SLN5				5.9	48.3			
	SLN3				5.2	24.5			
	SLN2				3.2	20.0			
	SL2				2.4	25.8			
	SLW1/SL1/TSL1				2.2	18.3			
	SLW07/SL07				2.7	14.1			
						Resistance Range	Rated Power	Size (Inch)	Tolerance
						0.2m~4mΩ	5W~12W	3920	±1%
						0.2m~0.5mΩ	8W/9W	2512	±1%
						0.5m/1mΩ	10W/8W	2725	±1%
						0.5m/1mΩ	5W/3W	1216	±1%
						0.2m/0.75m/1mΩ	12.5W/6W	4033	±1%
						0.5m/1m/1.5m/2mΩ	5W	2525	±1.5%
						3m/4mΩ	3W	3920	±1%
						0.5m~10mΩ	3W	2512	±1%
						0.5m~10mΩ	2W	2512	±1%
						0.5m~10mΩ	2W	2010	±1%
						0.5m~20mΩ	1.5W	1206	±1%
						0.5m~20mΩ	1W	1206	±1%
						0.5m~10mΩ	1W	2010	±1%
						2m~10mΩ	1W	0805	±1%
						1m~20mΩ	0.5W	1206	±1%
						10mΩ	0.2W	0402	±2.5%
						6m~120mΩ	4~5W	2512	±1%
						10m~270mΩ	2W	2512	±1%
						10m~100mΩ	0.25~0.5W	0805	±1%
						3m~200mΩ	7W	4527	±0.5,1%
						5m~110mΩ	3W	4527	±0.5,1.5%
						5m~200mΩ	2W	4527	±0.5,1.5%
						3m~360mΩ	2W	4527	±0.5,1,2,5%
						3m~200mΩ	1.5W/1W/1W	2512	±0.5,1,2,5%
						5m~100mΩ	1W/0.75W	2010	±1.5%

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Resistance Range	Rated Power	Size (Inch)	Tolerance
100m~9.1Ω	1W	0508	±1,5%
10m~9.1Ω	1.5~2W/3W	0612	±1,5%
10m~9.1Ω	1W/2W	1020	±1,5%
10m~9.1Ω	0.75~1W/1.5W	0612	±0.5,1,5%
10m~9.1Ω	1W	1218	±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	±1,2,5%
33m~10Ω	0.75W	2010	±1,2,5%
24m~10Ω	0.5~0.66W	1210	±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	±1,2,5%
100m~10Ω	0.166W	0402	±1,2,5%
180m~10Ω	0.1W	0201	±1,2,5%
Resistance Range	Rated Current	Size (Inch)	
Max. 0.5mΩ	44A	2512	
Max. 0.2mΩ	40A	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.

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