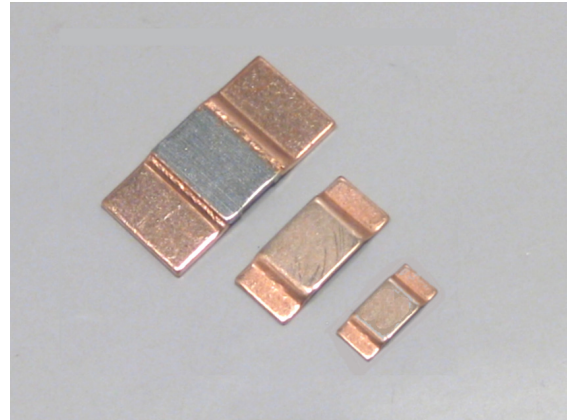


3W, 5W, 7W Current Sense Resistors RCS0603, RCS1005, RCS1508



Features and Applications

Presenting surface mounted, low resistance value, low profile, low inductance and large impulse durable metal plate current detectors.

Tolerance +/-1%, +/-5 % and TC ±150ppm/°C or ±50ppm/°C in standard.

Current detection circuit for high speed CPU peripherals, battery charging current protections, DC-DC conversion modules, DC-AC conversion, servo-motor control electronics, intelligent power modules,

Dimension, Foot Pattern

RCS0603

RCS1005

RCS1508

Model		A	B	C	D	E	F
RCS0603	(mm)	6.35+/-0.15	3.02+/-0.2	D + E	(0.42)	(0.42)	1.14+/-0.400
RCS1005	(mm)	10.0+/-0.254	5.20+/-0.254	D + E	0.33 - 1.30	0.50	2.00+/-0.254
RCS1508	(mm)	15.0+/-0.254	7.75+/-0.254	D + E	0.27 - 1.23	0.50	4.00+/-0.254
RCS0603	(inches)	0.250+/-0.010	0.118+/-0.010	D + E	0.016	0.016	0.045+/-0.010
RCS1005	(inches)	0.395+/-0.010	0.205+/-0.010	D + E	0.0130 – 0.0510	0.020	0.080+/-0.010
RCS1508	(inches)	0.591+/-0.010	0.305+/-0.010	D + E	0.0105 – 0.0485	0.020	0.157+/-0.010

Dimensions 'D'

Model	Resistance	0.5 mΩ	1.0 mΩ	2.0 mΩ	3.0 mΩ	4 mΩ
RCS0603	(inches)	0.0334	0.0165	0.0181	0.0189	0.0141
RCS1005	(inches)	0.0300	0.0150	0.0270	0.0170	0.0130
RCS1508	(inches)	0.0180	0.0330	0.0155	0.0105	---

Dimensions, Foot print

Model		G	H	J
RCS0603	(inches)	0.071+/-0.010	0.134+/-0.005	0.133+/-0.010
RCS1005	(inches)	0.106+/-0.010	0.220+/-0.005	0.244+/-0.010
RCS1508	(inches)	0.205+/-0.010	0.220+/-0.005	0.344+/-0.010

3W, 5W, 7W Current Sense Chip Resistors

RCS0603, RCS1005, RCS1508

Specifications

Model	Size mm	Power Rating W	Tolerance %	Resistance Value mΩ	Weight g/1000 pieces
RCS0603	6.36mm x 3.02mm	3.0	1.0, 5.0	0.3, 0.5, 1.0, 2.0, 3.0, 5.0	120
RCS1005	10mm x 5.2mm	3.0	1.0, 5.0	0.3, 0.5, 1.0, 2.0, 3.0, 4.0	280
RCS1508	15mm x 7.75mm	5.0	1.0, 5.0	0.2, 0.5, 1.0, 2.0, 3.0	400

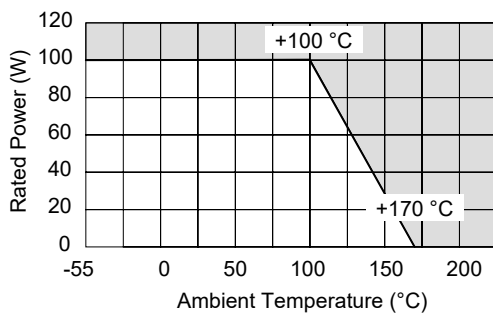
Ordering Information

Type	Resistance	Tolerance	Option Code	Remarks
RCS1005	R001	J	Z01	4000pcs/reel
RCS0603	R0005	J (5%) std	Z00	Bulk
RCS1005	R001	F (1%)	Z01	Tape Reel
RCS1508	R002			
	R003			
	R004			

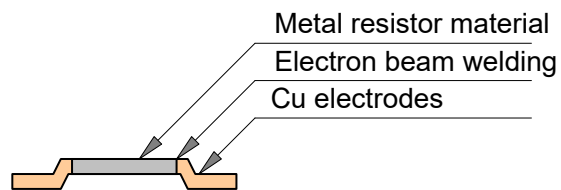
Specification and Performances

	RCS0603	RCS1005	RCS1508	Conditions
TCR	±150ppm/°C	±50ppm/°C	±50ppm/°C	-55°C to +60 °C range
Rating Current	45A	54A	70A	at 1mohm, and rated power
Maximum Current	67A	81A	105A	2.5 seconds one time
Series Inductance	1nH	2nH	5nH	
Operating Temp.	-55 °C to 175 °C			
Short Time Overload	+/-0.5%+0.5mohm)			maximum current, 2.5seconds.
Low Temperature Storage	+/-0.5%+0.5mohm)			-55°C, 24hours
High Temperature Storage	+/-1.0%+0.5mohm)			+170°C, 1000hours
Heat Shock	+/-0.5%+0.5mohm)			-55°C to +125°C, 20min. interval, 5min. 5cycles
Vibration	+/-0.5%+0.5mohm)			10-2000Hz, 1.5mm/20gr, 2hours
Soldering Heat	+/-0.25%+0.5mohm)			260C+/-5°C, 10+/-1seconds.
Solder ability	90%/terminal surface			
Humidity	+/-0.5%+0.1mohm)			85d°C, 85%RH, dc 0.1W, 1000 hours
Load Life	+/-0.5%+0.1mohm)			25°C, dc rated power, 90min ON, 30min OFF, 1000hours

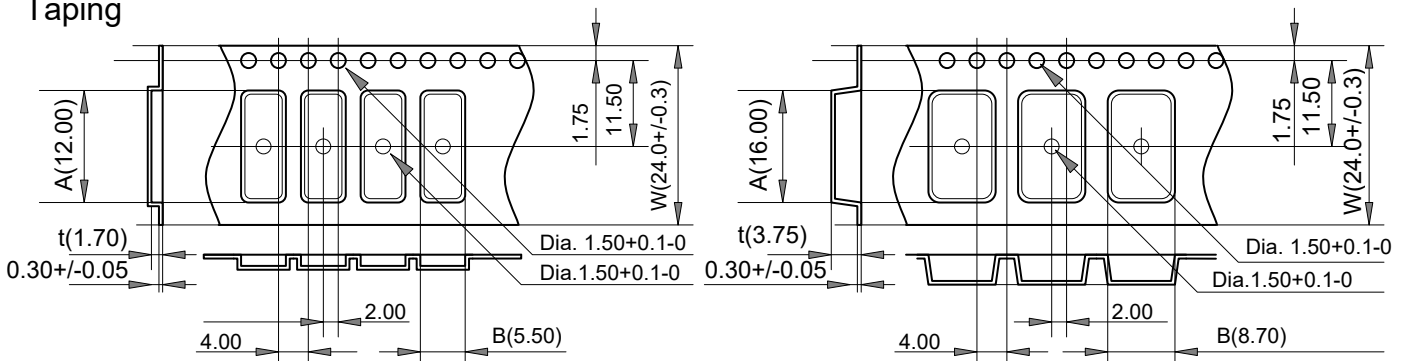
Derating



Materials and Structure



Taping



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