

AP5025 8 Watt Current Sense Chip Resistors



A very high power current sense chip resistor capable of dissipating 8 watts with recommended thermal management architecture on the PCB.

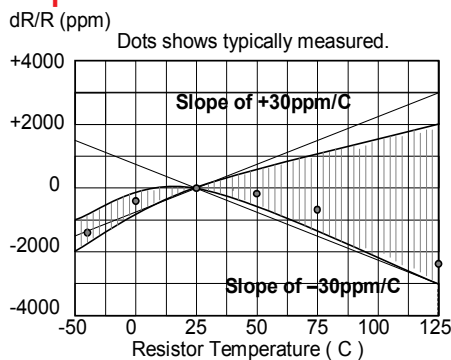


- Power Dissipation 8 watts with 700 micron PCB thermal Pad
- Low resistance values
- Excellent pulse / surge performance
- RoHS Compliant

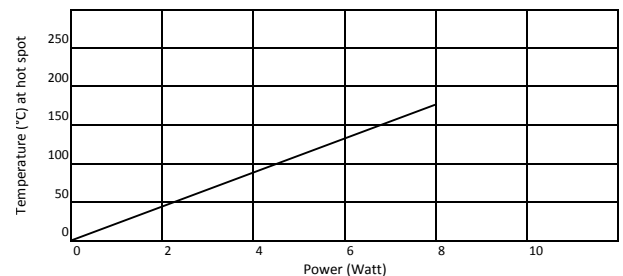
Characteristics

Resistance Values	R0005, R001, R002, R003, R004, R005, R01
TCR	$\pm 100\text{ppm}/^\circ\text{C}$
Tolerance	$\pm 1\%$ (F), $\pm 5\%$ (J)
Power Rating	8W, thermally managed
Current Rating	90A, at 1 m Ω
Maximum Current	126A, 2.5 seconds one time
Series Inductance	3nH
Operating Temperature	-55 $^\circ\text{C}$ to 175 $^\circ\text{C}$
Storage Temperature	-55 $^\circ\text{C}$ to 175 $^\circ\text{C}$
Short Time Overload	$\Delta R \pm (0.5\% + 0.5\text{m}\Omega)$, Maximum current, 2.5 seconds
Low Temperature Storage	$\Delta R \pm (0.5\% + 0.5\text{m}\Omega)$, -55 $^\circ\text{C}$, 24 hours
High Temperature Storage	$\Delta R \pm (1.0\% + 0.5\text{m}\Omega)$, +175 $^\circ\text{C}$, 1000 hours
Heat Shock	$\Delta R \pm (0.5\% + 0.5\text{m}\Omega)$, -55 $^\circ\text{C}$ to +125 $^\circ\text{C}$, 20min. Interval, 5min. 5 cycles
Vibration	$\Delta R \pm (0.5\% + 0.5\text{m}\Omega)$, 10-2000 Hz, 1.5mm/20gr, 2 hours
Soldering Heat	$\Delta R \pm (0.25\% + 0.5\text{m}\Omega)$, 260 $^\circ\text{C} \pm 5^\circ\text{C}$, 10 \pm 1 second
Solderability	90%/terminal surface
Humidity	$\Delta R \pm (0.5\% + 0.1\text{m}\Omega)$, 85 $^\circ\text{C}$, 85% RH, dc 0.1W, 1000 hours
Load Life	$\Delta R \pm (0.5\% + 0.1\text{m}\Omega)$, 25 $^\circ\text{C}$, dc rated power, 90 min ON, 30min OFF, 1000 hours

Temperature Characteristics



Temperature Rise



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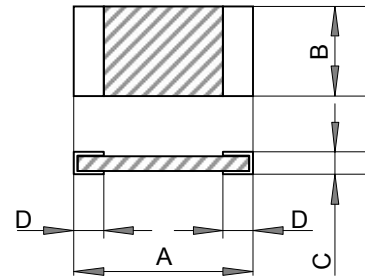
It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

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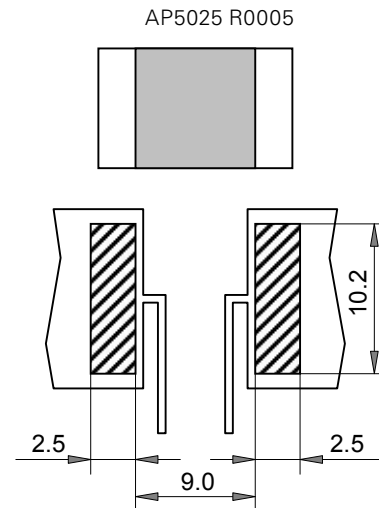
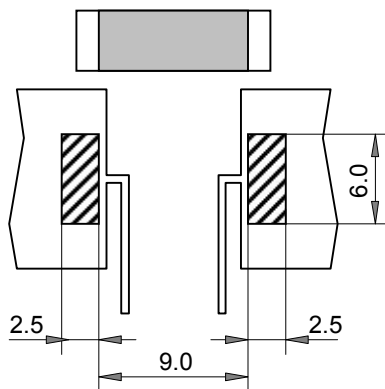


Dimensions (mm)

Type	A	B	C	D
R0005	12.8 ± 0.5	7.8 ± 0.5	2.5 max	1.3
R001	12.8 ± 0.5	4.5 ± 0.5	1.5 max	1.4
R002	12.8 ± 0.5	4.5 ± 0.5	1.5 max	1.4
R003	12.8 ± 0.5	5.2 ± 0.5	1.5 max	1.4
R004	12.8 ± 0.5	5.5 ± 0.5	1.5 max	1.4
R005	12.8 ± 0.5	4.5 ± 0.5	1.5 max	1.4
R01	12.8 ± 0.5	4.2 ± 0.5	0.6 max	1.3



Recommended Foot Print



Ordering Procedure

Standard Resistor: Series, Resistance Value, Tolerance code
 e.g. AP5025 R005 F

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