

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.

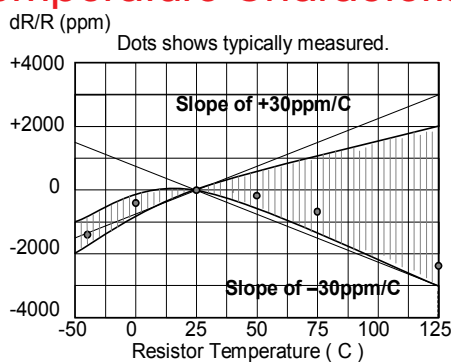


- Power Dissipation 8 watts with 700 micron PCB thermal Pad
- Low resistance values
- Excellent pulse / surge performance
- RoHS Compliant

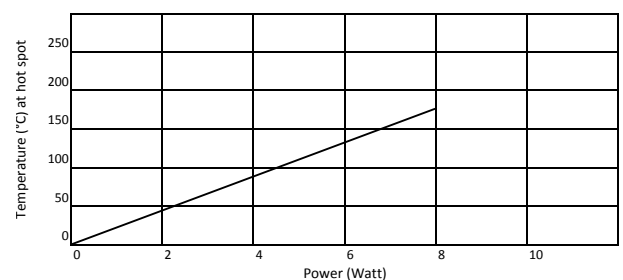
Characteristics

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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The information contained herein does not form part of a contract and is subject to change without notice. Arcol operate a policy of continual product development, therefore, specifications may change.

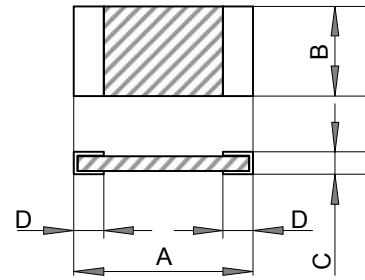
It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

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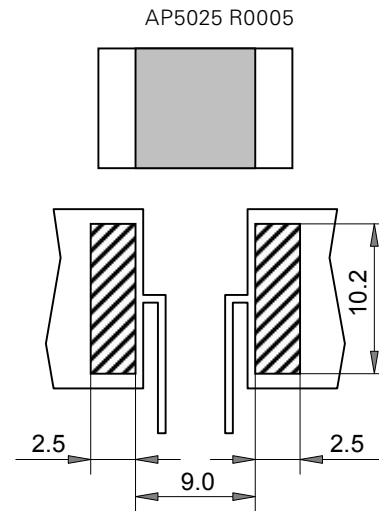
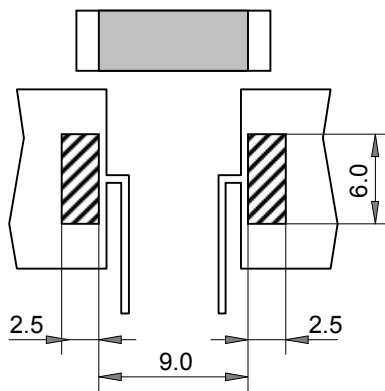


Dimensions (mm)

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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