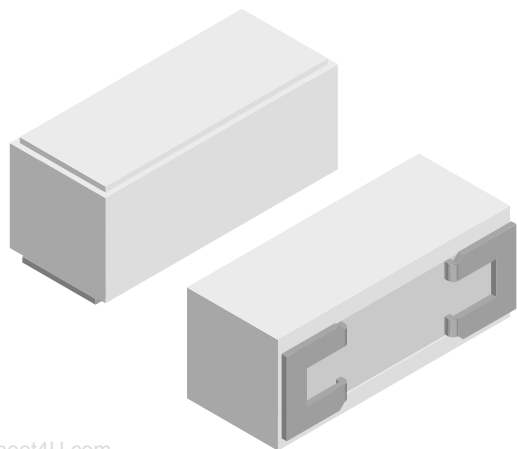


## Wirewound Resistors, Commercial Power, Surface Mount



### FEATURES

- Direct mounting on printed circuit board
- High wattage capabilities, low board temperatures
- Meets or exceeds EIA-RS-344 requirements
- Special inorganic potting compound and ceramic case provide high thermal conductivity in a fireproof package
- Superior surge capability

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### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{40^{\circ}\text{C}}$ W	RESISTANCE RANGE $\Omega$ $\pm 5\%, \pm 10\%$
CPSM-3	3	0.1 - 1k
CPSM-5	5	0.1 - 1k

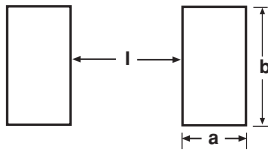
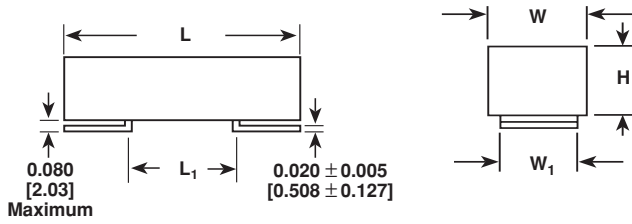
### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	CPSM RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	$\pm 600$ below $1.0\Omega$ , $\pm 300$ $1.0\Omega$ and above
Short Time Overload	—	5 x rated power for 5 seconds
Operating Temperature	$^{\circ}\text{C}$	- 65/+ 275
Dielectric Withstanding Voltage	$V_{\text{AC}}$	1000
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Weight (typical)	g	CPSM-3 = 5.5; CPSM-5 = 6.5

### ORDERING INFORMATION

CPSM-5 MODEL	100 $\Omega$ RESISTANCE $\Omega$	5% TOLERANCE $\pm \%$	B31 PACKAGING B31 = Bulk Pack
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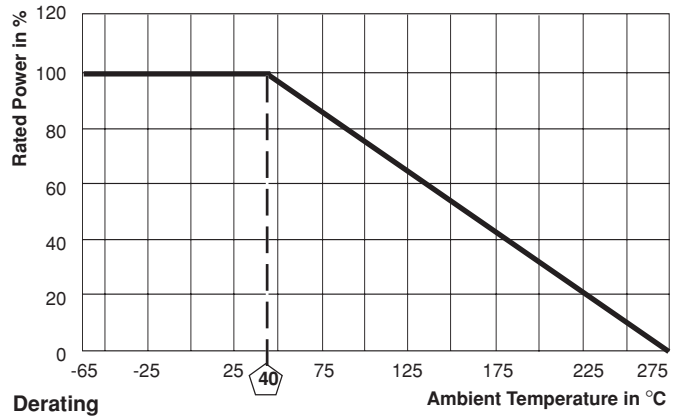
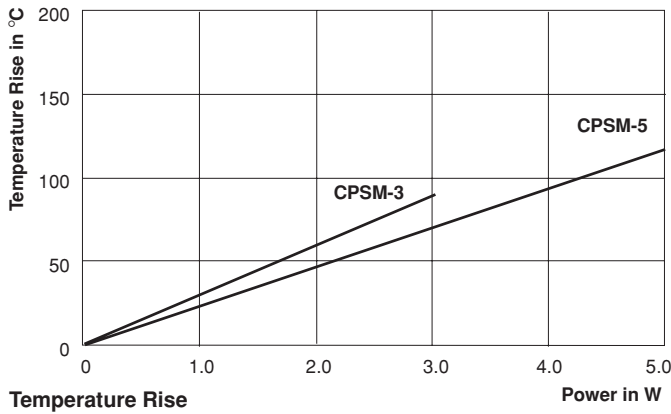
**DIMENSIONS**



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MODEL	DIMENSIONS in inches [millimeters]				
	L ± 0.032 [0.813]	W ± 0.031 [0.787]	L <sub>1</sub> ± 0.062 [1.57]	W <sub>1</sub> + 0.032 [0.813] - 0.012 [0.305]	H ± 0.031 [0.787]
CPSM-3	0.906 [23.01]	0.374 [9.50]	0.480 [12.19]	0.287 [7.29]	0.374 [9.50]
CPSM-5	1.060 [26.92]	0.374 [9.50]	0.590 [14.99]	0.287 [7.29]	0.374 [9.50]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]		
	a	b	l
CPSM-3	0.420 [10.67]	0.340 [8.64]	0.380 [9.65]
CPSM-5	0.440 [11.18]	0.340 [8.64]	0.490 [12.45]



MATERIAL SPECIFICATIONS	
Element	Copper-nickel alloy or nickel-chrome alloy, depending on resistance value
Core	Woven fiberglass
Body	Steatite ceramic case with inorganic potting compound
Terminals	Tin/lead plated steel
Part Marking	DALE, Model, Wattage, Value, Tolerance, Date Code

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS (EIA RS-344)
Thermal Shock	- 55°C to + 165°C, 5 cycles, 30 minute dwell time	± (5.0% + 0.05Ω)ΔR
Short Time Overload	5 x rated power for 5 seconds	± (4.0% + 0.05Ω)ΔR
Dielectric Withstanding Voltage	1000V <sub>rms</sub> for one minute	± (2.0% + 0.05Ω)ΔR
Low Temperature Operation	- 65°C, full rated working voltage for 45 minutes	± (3.0% + 0.05Ω)ΔR
Humidity	75°C, 90% - 100% RH, 240 hours	± (5.0% + 0.05Ω)ΔR
Load Life	1000 hours at rated power, + 40°C, 1.5 hours "ON", 0.5 hours "OFF"	± (10.0% + 0.05Ω)ΔR
Resistance to Solder Heat	+ 260°C solder, 10-12 second dwell, 25mm/second emergence	± (4.0% + 0.05Ω)ΔR