# **MEGGITT CGS**

HIGH VOLTAGE RESISTORS HIGH VALUE RESISTORS HIGH POWER RESISTORS ALUMINIUM CLAD RESISTORS CURRENT SENSE RESISTORS

# SMD Power Resistors



Meggitt CGS is pleased to introduce this low cost high power thick film device, suitable for auto placement in volume, and for flow and reflow soldering. It has a metal glaze resistive element and three layers of terminal material to ensure high reliability. It is attractively priced and available on 7" reels of 4000, 5000 or 10000 pieces.

## MEGGITT CGS KEY FEATURES

- SMALL SIZE TO POWER RATIO
- SUPPLIED ON TAPE
- AVAILABLE VIA DISTRIBUTION
- VALUE MARKED ON RESISTOR
- ATTRACTIVELY PRICED
- LABORATORY KIT AVAILABLE



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### **SPECIFICATION**

#### TYPE CR SERIES

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ELECTRICAL

Part Number	Package Size	Power Rating at 70°C (Watts)	* Maximum Working Voltage	Max. Overload Voltage	Resistance Stability	Resistance Range (ohms)	Temperature Range
CR1E	0402	0.063	50V	100V	3%	See Below	-55°C to +125°C
CR1J	0603	0.100	50V	100V	3%	See Below	-55°C to +125°C
CR2A	0805	0.125	150V	300V	3%	See Below	-55°C to +125°C
CR2B	1206	0.250	200V	400V	3%	See Below	-55°C to +125°C
CR3A	2512	** 1.00	200V	400V	3%	See Below	-55°C to +125°C

\* - See Note 1 - Page 3 \*\* - See Note 2 - Page 3

#### **RESISTANCE VALUE / TOLERANCE**

Part Number	Resistance Tolerance	Tolerance Code	Resistance Value Grid	Temperature Coefficient	Resistance Value Range
CR1E	1%	F	E-96	±100 ppm/°C	10R to 1M0
	5%	J	E-24	±350 ppm/°C	1R0 to 9R1
	2%/5%	G/J	E-24	±200 ppm/°C	10R to 3M3
	1%	F	E-96	±100 ppm/°C	10R to 1M0
CRII	2%	G	E-24	±200 ppm/°C	10R to 4M7
CIUIJ	50/	Ţ	E-24	±350 ppm/°C	1R0 to 9R1
	J /0	J	E-24	±200 ppm/°C	10R to 10M
	1%	F	E-96	±100 ppm/°C	10R to 1M0
CR2A	2%/5%	G/J	E-24	±350 ppm/°C	1R0 to 9R1
	2%/5%	G/J	E-24	±200 ppm/°C	10R to 10M
CR2B	1%	F	E-96	±100 ppm/°C	10R to 1M0
	2%/5%	G/J	E-24	±350 ppm/°C	1R0 to 9R1
	2%/5%	G/J	E-24	±200 ppm/°C	10R to 10M
CR3A	1%	F	E-96	±100 ppm/°C	10R to 1M0
	2%	G	E-24	±350 ppm/°C	1R0 to 9R1
	2%/5%	G/J	E-24	±200 ppm/°C	10R to 1M0

### SPECIFICATION

#### **TYPE CR SERIES**

#### POWER DERATING CURVE

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve right.



Note 1. Rated continuous working voltage (RCWV) shall be determined from

RCWV = / Rated Power x Resistance Value, or Maximum RCWV listed above, whichever less.

**Note 2.** If this device is anticipated to run at full continuous power then action to improve the cooling should be taken. This can be a metal substrate, copper pad left under the chip, an opening in the PCB or enlarged silver conductor pads each end.

DIMENSIONS						
	Part Number	Package Size	Length (L)	Width (W)	Thickness (t)	Terminal (a)
	CR1E CR1J CR2A CR2B CR3A	0402 0603 0805 1206 2512	$\begin{array}{c} 1.0 \pm 0.1 \\ 1.6 \pm 0.1 \\ 2.1 \pm 0.2 \\ 3.1 \pm 0.2 \\ 6.4 \pm 0.2 \end{array}$	$\begin{array}{c} 0.5 \pm 0.1 \\ 0.8 \pm 0.1 \\ 1.3 \pm 0.1 \\ 1.55 \pm 0.1 \\ 3.2 \pm 0.2 \end{array}$	$\begin{array}{c} 0.35 \pm 0.05 \\ 0.45 \pm 0.1 \\ 0.50 \pm 0.1 \\ 0.55 \pm 0.1 \\ 0.60 \pm 0.1 \end{array}$	$\begin{array}{c} 0.25 \pm 0.1 \\ 0.30 \pm 0.1 \\ 0.30 \pm 0.2 \\ 0.40 \pm 0.2 \\ 0.70 \pm 0.2 \end{array}$

### PACKAGING

Part	Package	Tape	Pitch	Blister	Blister	Sprocket	Tape	Tape	Reel	Reel
Number	Size	Width (W)	(P0)	Width (A)	Length (B)	Location (F)	Thickness (t <sub>1</sub> )	Thickness (t <sub>2</sub> )	Diameter	Quantity
CR1E CR1J CR2A CR2B CR3A	0402 0603 0805 1206 2512	8.0 8.0 8.0 8.0 12.0	2.0 4.0 4.0 4.0 4.0	$\begin{array}{c} 0.63 \pm 0.05 \\ 1.10 \pm 0.20 \\ 1.65 \pm 0.20 \\ 2.00 \pm 0.15 \\ 3.40 \pm 0.10 \end{array}$	$\begin{array}{c} 1.13 \pm 0.05 \\ 1.90 \pm 0.20 \\ 2.40 \pm 0.20 \\ 3.60 \pm 0.20 \\ 6.60 \pm 0.10 \end{array}$	$\begin{array}{c} 3.5 \pm 0.05 \\ 3.5 \pm 0.05 \\ 3.5 \pm 0.05 \\ 3.5 \pm 0.05 \\ 5.5 \pm 0.05 \end{array}$	$\begin{array}{c} 0.55 \pm 0.10 \\ 0.70 \pm 0.10 \\ 0.90 \pm 0.10 \\ 0.90 \pm 0.10 \\ 1.00 \pm 0.10 \end{array}$	0.5 maximum 0.8 maximum 1.0 maximum 1.0 maximum	180.0 180.0 180.0 180.0 180.0	10000 5000 5000 5000 4000



#### HOW TO ORDER

CR	3A	1K0	J	Т	
Common Part	Package Size	<b>Resistance Value</b>	Tolerance	Pack Style	
CR - Thick Film Chip Resistor	1E - 0402 Series 1J - 0603 Series 2A - 0805 Series 2B - 1206 Series 3A - 2512 Series	1 ohm 1000 milli ohms 1R0   1K Ohm 1000 ohms 1K0   1 Meg Ohm 1000000 ohms 1M0	F - 1% G - 2% J - 5%	T - 7" Reels (See Above for Reel Quantity)	



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