

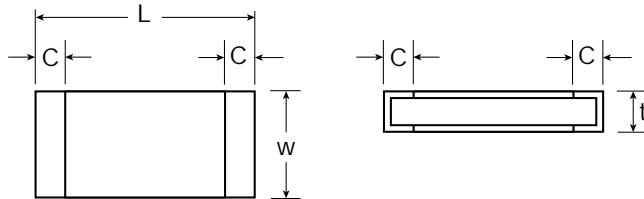


Chip Resistors

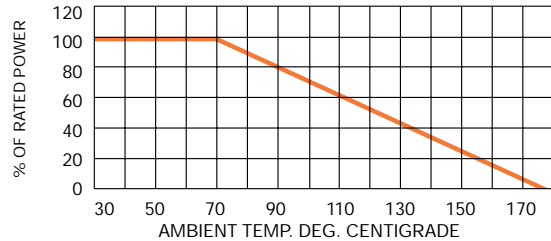
Features

- Flat Chip Resistors for surface mount applications.
- Excellent mechanical strength and electrical stability due to special electrode construction.
- Free from troubles at placement due to accurate and uniform physical dimensions.

Specifications



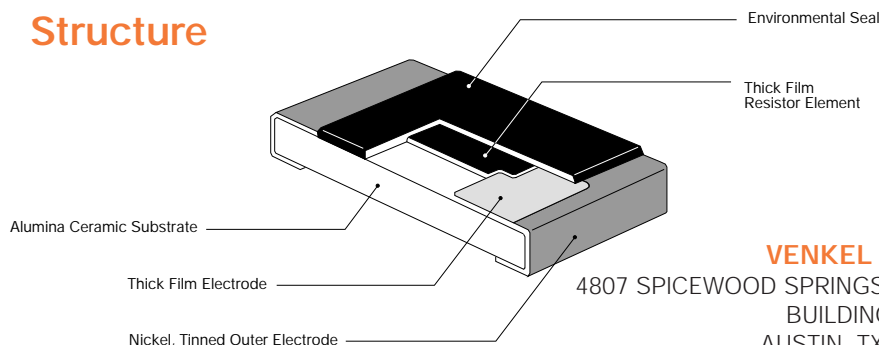
DERATING CURVE



Series	Power Rating at 70°C	Max. Working Voltage	Zero (ohm) Current Rating	Resistance Range	L (Length) Inches (mm)	W (Width) Inches (mm)	t (Thickness) Inches (mm)	C (End Band) Inches (mm)
CR0201-20W	0.050W	25V	0.5A	10 - 1M ohms	0.024 ± .002 (0.6 ± 0.05)	0.012 ± .001 (0.3 ± 0.02)	0.010 ± .002 (0.25 ± 0.05)	0.006 ± .002 (0.15 ± 0.05)
CR0402-16W	0.063W	50V	1A	Zero - 10M ohms	0.040 ± .002 (1.0 ± 0.05)	0.020 ± .001 (0.5 ± 0.02)	0.014 ± .002 (0.35 ± .05)	0.008 ± .004 (0.2 ± 0.1)
CR0603-16W	0.063W	50V	1A	Zero - 20M ohms	0.063 ± .004 (1.6 ± 0.1)	0.031 ± .004 (0.8 ± 0.1)	0.018 ± .004 (0.45 ± 0.1)	0.012 ± .006 (0.30 ± 0.15)
CR0603-10W	0.10W	50V	1A	Zero - 20M ohms	0.063 ± .004 (1.6 ± 0.1)	0.031 ± .004 (0.8 ± 0.1)	0.018 ± .004 (0.45 ± 0.1)	0.012 ± .006 (0.30 ± 0.15)
CR0805-10W	0.10W	150V	2A	Zero - 22M ohms	0.079 ± .006 (2.0 ± 0.15)	0.050 ± .006 (1.25 ± 0.15)	0.018 ± .006 (0.45 ± 0.15)	0.014 ± .006 (0.35 ± 0.15)
CR0805-8W	0.125W	150V	2A	Zero - 22M ohms	0.079 ± .006 (2.0 ± 0.15)	0.050 ± .006 (1.25 ± 0.15)	0.018 ± .006 (0.45 ± 0.15)	0.014 ± .006 (0.35 ± 0.15)
CR1206-8W	0.125W	200V	2A	Zero - 22M ohms	0.126 ± .006 (3.2 ± 0.15)	0.063 ± .006 (1.6 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.020 ± .008 (0.50 ± 0.20)
CR1206-4W	0.25W	200V	2A	Zero - 22M ohms	0.126 ± .006 (3.2 ± 0.15)	0.063 ± .006 (1.6 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.020 ± .008 (0.50 ± 0.20)
CR1210-4W	0.25W	200V	4A	Zero - 3.3M ohms	0.126 ± .006 (3.2 ± 0.15)	0.098 ± .006 (2.50 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.020 ± .008 (0.50 ± 0.20)
CR1210-2W	0.50W	200V	4A	Zero - 3.3M ohms	0.126 ± .006 (3.2 ± 0.15)	0.098 ± .006 (2.50 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.024 ± .008 (0.60 ± 0.20)
CR2010-2W	0.50W	200V	5A	Zero - 2.2M ohms	0.197 ± .006 (5.0 ± 0.15)	0.098 ± .006 (2.50 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.024 ± .008 (0.60 ± 0.20)
CR2010-1W	1.00W	200V	5A	Zero - 2.2M ohms	0.197 ± .006 (5.0 ± 0.15)	0.098 ± .006 (2.50 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.024 ± .008 (0.60 ± 0.20)
CR2512-1W	1.00W	200V	5A	Zero - 2.2M ohms	0.248 ± .006 (6.3 ± 0.15)	0.126 ± .006 (3.2 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.024 ± .008 (0.60 ± 0.20)
CR2512-2W	2.00W	200V	5A	Zero - 2.2M ohms	0.248 ± .006 (6.3 ± 0.15)	0.126 ± .006 (3.2 ± 0.15)	0.022 ± .006 (0.56 ± 0.15)	0.024 ± .008 (0.60 ± 0.20)

Operating Temp. Range is -55°C to +175°C • DC Resistance Value of zero ohm is 50m ohms max.

Structure



VENKEL CORP
 4807 SPICEWOOD SPRINGS ROAD
 BUILDING No. 3
 AUSTIN, TX 78759

Phone: 512 / 794-0081
 Fax: 512 / 794-0087
 Toll Free: 800 / 950-8365
 e-mail: sales@venkel.com
 www.venkel.com

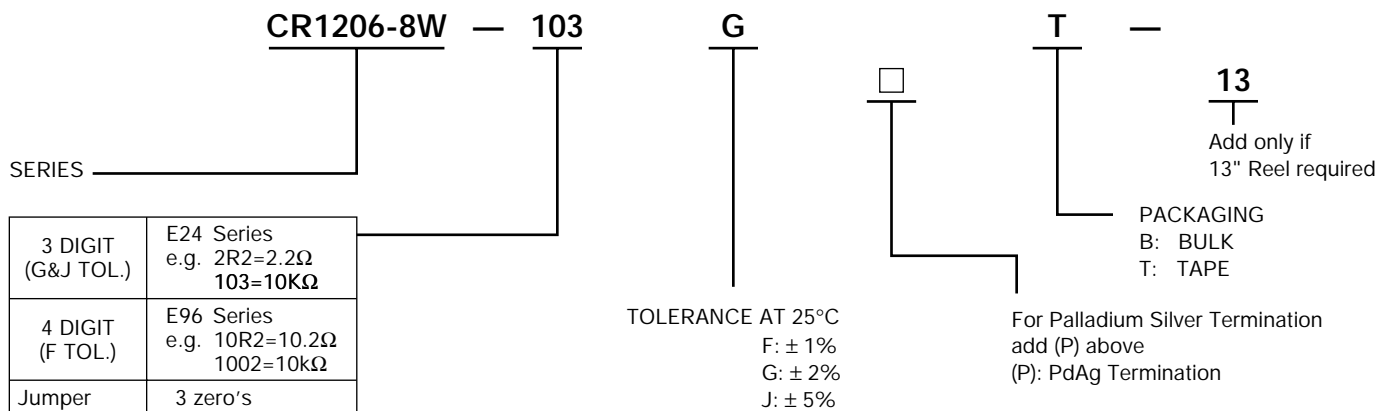
Characteristics

Item	Test Basis: EIA J-RC-2690A	Specification Requirements	Typical
Short-time Overload	2.5 x rated voltage for 5 sec.	±1% +0.5Ω, no arc evidence	within ±0.4%
Load Life	70°C, rated voltage for 1.5 hrs. on/0.5 hr. for 1000 hrs.	<1 meg. ±3% +0.1Ω, > 1 meg. ±5%	—
Dielectric Withstanding Voltage	500V for 1 minute	No insulation breakdown	above 900-950V
Resistance to Soldering Heat	270°C for 10 seconds	±1% +0.05Ω, no mechanical damage	—
Temperature Cycling	EIA STD. 575, Para. 3.5 -55 ~ +125° C, 5 cycles.	± 1.0%	—
Solderability	230°C, 3 seconds, flux applied	95% minimum coverage	more than 97-98%
Curing Heat Resistance	+150°C for 10 minutes	±1% +0.05Ω	within ±0.3%
Dry Heat Resistance	-125°C for 1,000 hours	±3% +0.1Ω, no mechanical damage	within ±0.5%
Pull Terminal Strength	500G load for 30 seconds	±1% +0.05Ω, no mechanical damage	within ±0.2%
PCB Terminal Strength	1/45mm bend for 10 seconds	±1% +0.05Ω, no mechanical damage	within ±0.2%
Moisture Resistance, Thermal Shock	-55°C to +125°C, 5 cycles	±1% +0.05Ω, no mechanical damage	within ±0.2%
Moisture Load Life	40°C, 95% R.H., 1.5 hr. on, 0.5 hr. off, 1,000 hours	<1 meg ±3% +0.1Ω, > 1 meg. ±5%	—
Insulation Resistance	500V, 1 minute	1,000 meg. minimum	more than 10 Meg.
Voltage Coefficient	Rated voltage and 1/10 times rated voltage	+0/-100ppm/v: above 1K ±	within - 90ppm/V
Low Temperature Exposure	-55°C for 1,000 hours	±3% +0.1Ω, no mechanical damage	within ±0.5%

Temp. Coefficient (PPM/°C)

J Tol.: ± 200; F Tol.: ± 100 Under 10 ohm & over 1 Meg ohm,
F Tol.: ± 350 0201 and 0402 case sizes, the T.C.R. is ±250 for J and F Tol.

How To Order



VENKEL CORP
4807 SPICEWOOD SPRINGS ROAD
BUILDING No. 3
AUSTIN, TX 78759

Phone: 512 / 794-0081
Fax: 512 / 794-0087
Toll Free: 800 / 950-8365
e-mail: sales@venkel.com
www.venkel.com