CHIP FUSING RESISTORS

CRF

CRF 10,18,14,12,01

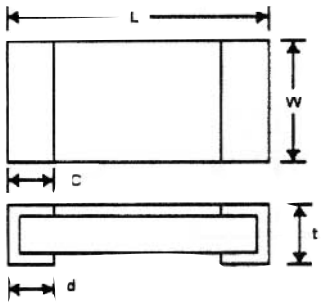
LEADFREE
RoHS Compliant

- Reflow & Wave Solderable
- Performs like RMC under normal conditions
- Fuses when overloaded
- Anti-leaching Nickel barrier & 90/10 Solder Plated Terminations are standard
- Three (3) Digit Black Mark on Brown Protective Coating

Standard E-24 (5%) Decade Values

1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.7	3.0
3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1

Dimensions: (mm)



Type	L±0.2	W	C	$d^{+0.2}_{-0.1}$	t±0.1
CRF10	2.0	1.25±0.1	0.4±0.2	0.3	0.5
CRF18	3.2	1.6±0.2	0.5±0.3	0.4	0.6
CRF14		2.6±0.2			
CRF12	5.0	2.5±0.2			
CRF01	6.3	3.1±0.2			

STANDARD APPLICATIONS

PART DESIGNATION	POWER RATING @ 70°C	TCR (ppm/°C) Max.	RESISTANCE RANGE E-24***	RESISTANCE TOLERANCE	MAX. OPEN CIRCUIT VOLTAGE	FUSING CHARACTERISTICS FUSING POWER					OPER. TEMP. RANGE	MAX. FUSING TIME
CRF 10	100mW	±1000 (0.2-4.3Ω) ±500 (4.7-510Ω)	0.2 - 510Ω	J(±5%)	50V	3.0W 0.2~0.47Ω	2.6W 0.51~1.0Ω	2.4W 1.1~20Ω	2.0W 22~100Ω	1.75W 110~510Ω	-55°C to +125°C	60 sec.
CRF 18	125mW					3.75W 0.2~0.47Ω	2.875W 0.51~1.0Ω	2.5W 12~24Ω	2.2W 27~100Ω	2.0W 110~510Ω		
CRF 14	250mW					4.5W 0.2~0.47Ω	4.1W 0.51~1.0Ω	3.5W 5.1~27Ω	3.2W 30~100Ω	3.0W 110~510Ω		
CRF 12	500mW				100V	5.5W 0.2~0.47Ω	5.0W 0.51~1.0Ω	4.0W 5.1~27Ω	3.5W 30~100\Ω	3.2W 110~510Ω		
CRF 01	1000mW					6.5W 0.2~0.47Ω	6.0W 0.51~1.0Ω	5.0W 5.1~30Ω	4.5W 33~100Ω	4.0W 110~510Ω		

Part Numbering System

CRF 10 — 100 J T

Product Type

Chip Resistor Fusing

SIZE

CODE	WATTAGE (SIZE)
10	1/10 watt (0805)
18	1/8 watt (1206)
14	1/4 watt (1210)
12	1/2 watt (2010)
01	1.0 watt (2512)

Resistance Value E-24

2 significant digits and 1 multiplier, R indicates decimal on values <10Ω

TOLERANCE

CODE	%
J	±5%

Packaging

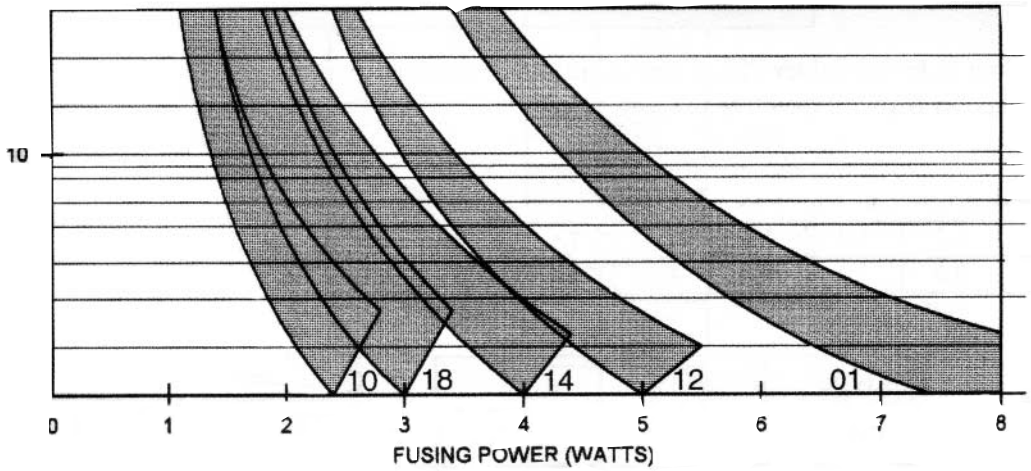
CODE	DETAIL	Qty/Package
B	Bulk	1000 pcs.
T	Tape & Reel (paper carrier)	5000 pcs.
TE	Tape & Reel (plastic carrier)	4000 pcs.

Please refer to packaging explanation on page 6.

CRF 10, 18, 14, 12, 01

LEADFREE
RoHS Compliant

TYPICAL FUSING CHARACTERISTICS



TYPICAL FUSING CHARACTERISTICS

PARAMETER	MAXIMUM ³ R	TEST METHOD
Thermal Shock	± 0.3%	MIL-STD-202, Method 107 -55ºC to +125ºC, 5 cycles
Low Temperature Operation	± 0.3%	MIL-R-55342 π 4.7.4 1 hour @ -55ºC followed by 45 minutes of RCWV**
High Temperature Exposure	± 0.75%	MIL-R-55342 π 4.7.6 100 hours @ 125ºC
Short Time Overload	± 2.0%	MIL-R-55342 π 4.7.5 2.5 X RCWV for 5 seconds
Resistance to Soldering Heat	± 0.3%	MIL-R-55342 π 4.7.7 260ºC for 10 seconds
Terminal Strength-Push	± 0.75%	1.2 Kg for 1 minute
Terminal Strength-Bend	± 0.5%	5mm Deflection in either direction for 10 seconds
Moisture Resistance	± 1.5%	MIL-STD-202, Method 106 10 cycles, 240 hours
Life	± 1.5%	MIL-STD-202, Method 108 70ºC, 1000 hours @RCWV, 1.5 hrs. On, .5 hr. Off
Pulse	± 2.5%	2.5 X RCWV, not exceeding maximum overload voltage 1 second On, 25 seconds Off, 10,000 cycles
Temperature Cycling	± 1.0%	30 minutes @ -55ºC; 15 minutes @ 25ºC, 30 minutes @125ºC, 15 minutes @ 25ºC, 5 cycles
	MINIMUM	
Terminal Adhesion	15 grams, minimum	Axial Pull, one terminal at a time
Dielectric Withstanding Voltage 10, 18, 14	200V	MIL-STD-202, Method 301
12, 01	400V	
Insulation Resistance	10,000 Meg Ohm	

**RCWV = Rated Continuous Working Voltage