

RC02, RC03, RC05, RC06, RC12, RC20, RC25 THICK FILM CHIP RESISTORS FEATURES

- Extremely thin and light
- Highly reliable multilayer electrode construction
- Compatible with both flow soldering and reflow soldering
- Highly stable in auto-placement surface mounting applications
- Barrier layer end termination
- Zero Ohm Jumper available
- Available in 8mm Tape and Reel per EIA RS481

ELECTRICAL CHARACTERISTICS

Size Code	RC02 (0402)	RC03 (0603)	RC05 (0805)	RC06 (1206)	RC12 (1210)	RC20 (2010)	RC25 (2512)
Power Rating @ 70°C	1/16W	1/10W	1/8W	1/4W	1/3W	3/4W	1W
Operating Temp. Range Derated to 0 Load at	-55°C to +125°C +125°C						
Maximum Working Voltage	25V	50V	150V	200V	200V	200V	200V
Maximum Overload Voltage	50V	100V	300V	400V	400V	400V	400V
Resistance Range	Special value on request						
1%, E-96	100Ω-100KΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ	10Ω-1MΩ
5%, E-24	2Ω-5.6MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ	1Ω-10MΩ
Zero Ohm Jumper <0.01Ω							
Temperature Coefficient	1%: ±100ppm/°C, 5%: ±200ppm/°C 1Ω-10Ω : -200ppm/°C to +500ppm/°C						

ENVIRONMENTAL CHARACTERISTICS

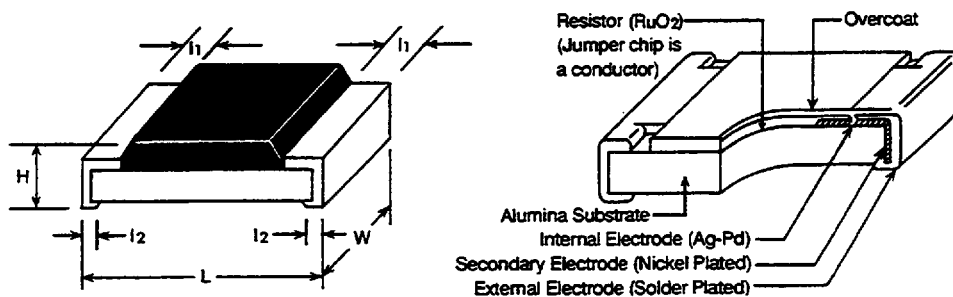
PERFORMANCE TEST	TEST METHOD	1% TOLERANCE	5% TOLERANCE
Temperature Coefficient (by Type)	MIL-STD-202F, Method 304 -55°C to +125°C	±100ppm/°C	±200ppm/°C
Thermal Shock	MIL-STD-202F, Method 107 5 cycles, -55°C to +125°C	±(0.5%, +0.05Ω)	±(1.0%, +0.05Ω)
Low Temperature Operation	MIL-R-55342D, Para. 4.7.4 One hour at -55°C followed by 45 minutes RCWV	±(0.5%, +0.05Ω)	±(1.0%, +0.05Ω)
Short Time Overload	MIL-R-55342D, Para. 4.7.5 2.5 times RCWV for 5 seconds.	±(1.0%, +0.05Ω)	±(2.0%, +0.05Ω)
High Temperature Exposure	MIL-R-55342D, Para. 4.7.6 125°C for 100 hours	±(1.0%, +0.05Ω)	±(2.0%, +0.1Ω)
Resistance to Soldering Heat	MIL-R-55342D, Para. 4.7.7 Soldered to test board at 260°C for 10 seconds	±(0.5%, +0.05Ω)	±(1.0%, +0.05Ω)
Moisture Resistance	MIL-STD-202F, Method 106 10 cycles. Total 240 hours	±(0.5%, +0.05Ω)	±(2.0%, +0.05Ω)
Life	MIL-STD-202F, Method 108A 1000 hours at 70°C RCWV intermittent	±(1.0%, +0.05Ω)	±(3.0%, +0.1Ω)
Solderability	MIL-STD-202F, Method 208 230°C for 5 seconds	95% min. coverage	95% min. coverage
Bending Strength	Unit mounted in center of 90mm board length, deflected 5mm in either direction for 10 seconds	±(1.0%, +0.05Ω)	±(1.0%, +0.05Ω)



All inquiries should be directed to:

Piher International Corp.
903 Feehanville Dr.
Mt. Prospect, IL 60056
Tel. 847-390-6680/Fax 847-390-9866

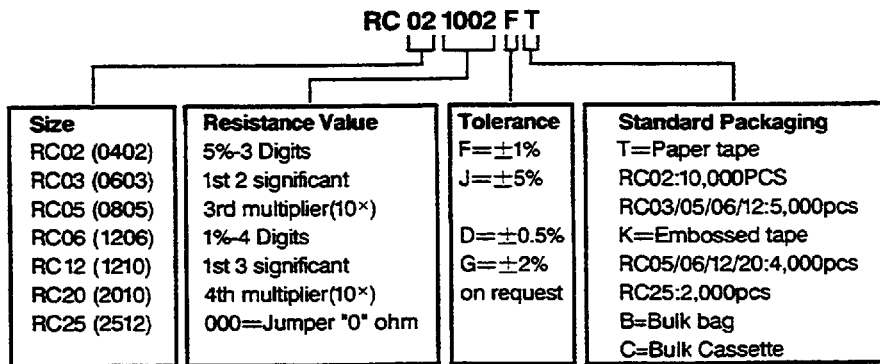
CHIP DIMENSIONS



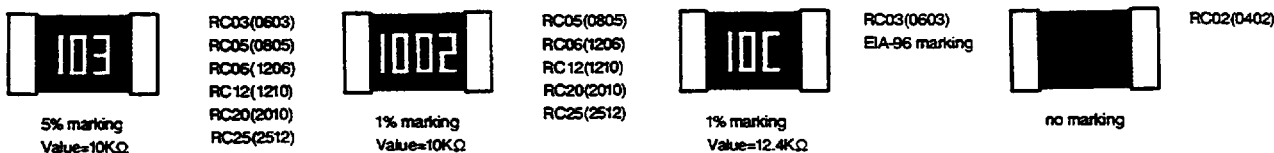
Unit: Inches (Millimeters)

Size Code	L	W	H	l ₁	l ₂
RC02 (0402)	0.040±0.004 (1.00±0.10)	0.020±0.002 (0.50±0.05)	0.014±0.002 (0.35±0.05)	0.008±0.004 (0.20±0.10)	0.010±0.004 (0.25±0.10)
RC03 (0603)	0.063±0.004 (1.60±0.10)	0.031±0.004 (0.80±0.10)	0.018±0.004 (0.45±0.10)	0.012±0.008 (0.30±0.20)	0.012±0.008 (0.30±0.20)
RC05 (0805)	0.079±0.006 (2.00±0.15)	0.049±0.004 (1.25±0.10)	0.020±0.004 (0.50±0.10)	0.016±0.008 (0.40±0.20)	0.016±0.008 (0.40±0.20)
RC06 (1206)	0.126±0.006 (3.20±0.15)	0.063±0.006 (1.60±0.15)	0.024±0.004 (0.60±0.10)	0.020±0.010 (0.50±0.25)	0.020±0.010 (0.50±0.25)
RC12 (1210)	0.126±0.006 (3.20±0.15)	0.098±0.006 (2.50±0.15)	0.022±0.006 (0.56±0.15)	0.020±0.010 (0.50±0.25)	0.016±0.008 (0.40±0.20)
RC20 (2010)	0.200±0.006 (5.00±0.15)	0.098±0.006 (2.50±0.15)	0.022±0.006 (0.56±0.15)	0.024±0.010 (0.60±0.25)	0.016±0.008 (0.40±0.20)
RC25 (2512)	0.250±0.006 (6.30±0.15)	0.126±0.006 (3.20±0.15)	0.022±0.006 (0.56±0.15)	0.024±0.010 (0.60±0.25)	0.016±0.008 (0.40±0.20)

PARTS NUMBER



MARKING DIAGRAMS



Marking explanation

- 5% tolerance: 3 digits, first two digits are significant, third digit is number of zeros. Letter R is decimal point.
- 1% tolerance: 4 digits, first three digits are significant, fourth digit is number of zeros. Letter R is decimal point.
- 0603 1% : EIA-96 marking (see page:5)
- 0402 no marking

Packaging

- Paper or plastic tape : 5,000 per 7" reel.
- Embossed tape : 4,000 per 7" reel.
- Bulk bag : 5,000 per plastic bag, 2 bags per box.
- Bulk Cassette : see page 7.
- Standard packaging is 8mm tape reel per EIA481.