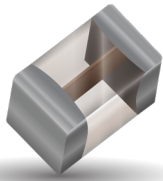


HR02 Series

High Reliability Resistors



GENERAL DESCRIPTION

The HR Series is the next generation of surface mount High Value Resistors. This product was designed with our proprietary Glass Sandwich FLEXITERM® Technology. The FLEXITERM® is a surface mountable automotive and medically qualified termination that adds an extra margin against damage due to flexure during installation. The HR Series has been designed with high quality selected materials that yield excellent performance in a small size. Resistor is designed to be embedded in glass sandwich to avoid environmental conditions, and provide low burst noise at high thin film resistance values. This product is ideal for use in applications requiring surface mountable small outline EIA resistors.

FEATURES

- EIA 0402 Size
- Power Rating: 125 mW
- Low Current Consumption
- High Voltage
- Operating Temperature -40°C to +125°C
- Low Burst Noise

APPLICATIONS

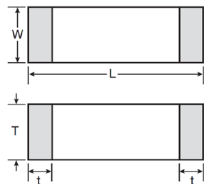
- Multi Chip Module (MCM)
- Bias Networks
- Test and Measurement Equipment
- Aerospace
- Medical
- Automotive

HOW TO ORDER

HR02	A	5R1	D	Z	TR
Size	TCR	Resistance (Ohms)	Tolerance	Termination	Packaging
HR02 = 0402	A = ± 150 S = Special Request supply design or contact factory	1R1 = 1.1 Ω 100 = 10 Ω 101 = 100 Ω 102 = 1,000 Ω 103 = 10,000 Ω 104 = 100,000 Ω 105 = 1,000,000 Ω 106 = 10,000,000 Ω	D = ±0.5%* F = 1% G = 2% J = 5% *Non-standard tolerance values per special request	7 = Nickel Gold* Z = Nickel Tin *Non-standard termination per special request	TR = Tape & Reel (500 pcs) TR1K = Tape & Reel (1,000 pcs) W = Waffle Pack

MECHANICAL DIMENSIONS mm (inches)

Length (L)	1.00±0.10 (0.039±0.004)
Width (W)	0.50±0.10 (0.020±0.004)
Thickness (T)	0.50±0.10 (0.020±0.004)
Terminal (t)	0.25±0.15 (0.010±0.006)



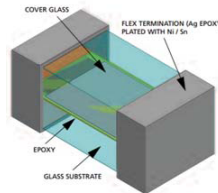
0402 TYPICAL CHARACTERISTICS

Resistor	Detail
Outline	EIA 0402
Package	Glass wafer sandwich
Termination	FLEXITERM® (Ag/Epoxy), plated
Power Rating	125 mW
Operating Temperature Range	-40°C to +125°C

Resistors from 1k to 30M Ohms available upon request

STANDARD VALUES

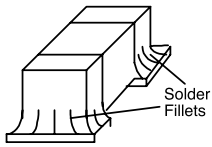
Part Number	Value (ohm)
HR02A102FZTR	1000
HR02A222FZTR	2200
HR02A472FZTR	4700
HR02A103FZTR	10000
HR02A223FZTR	22000
HR02A473FZTR	47000
HR02A104FZTR	100000
HR02A224FZTR	220000
HR02A474FZTR	470000
HR02A105FZTR	1000000
HR02A225FZTR	2200000
HR02A475FZTR	4700000
HR02A106FZTR	10000000
HR02A226FZTR	22000000
HR02A306FZTR	30000000



HR02 Series

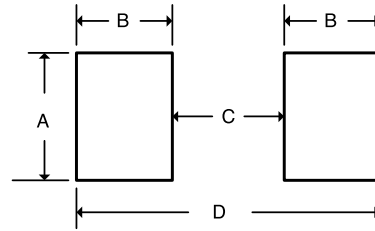
High Reliability Resistors

SUGGESTED MOUNTING PAD DIMENSIONS



Normal Pads

W = Chip Width L = Chip Length T = Chip Thickness



Case Size	A Min.	B Min.	C Min.	D Min.
0402	0.54 (0.0213)	0.3175 (0.0125)	0.523 (0.0206)	1.107 (0.0436)

mm (inches)

NOTES:

Mounting will allow the solder fillet to travel up approximately 0.015" of the chip's end and side termination surface. Heavier fillets require a predeposition of solder paste and or an increase in pad dimensions. Typical solder paste application is a .008" to 0.01" thickness with >50% of volume in solder alloy. Can be mounted in both vertical and horizontal orientation without changing electrical performance

POWER DERATING

