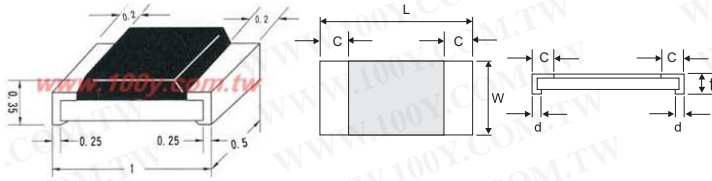


# Resistors & Potentiometers

## 0402 Chip Resistors -(1/16W)

Detailed product specifications are available on: [us.100y.com.tw](http://us.100y.com.tw)

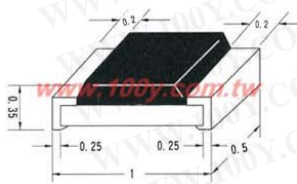


TYPE	L	W	t	c	d
0402	1.0±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.20±0.10

### CHARACTERISTICS

TEST	LIMITS	TEST METHOD	
		JIS C 5202	EIAJ 2690
Terminal strength	±(1%+0.05Ω) over 1Kg/mm <sup>2</sup>	—	6.5
Resistance to soldering heat	±(1%+0.05Ω)	6.4 270°C/10 sec.	—
Short time overload	±(1%+0.05Ω)	5.5A	—
Intermittent overload	±(2%+0.05Ω)	5.8	—
Temperature cycling	±(2%+0.2Ω)	—	6.8
Load life	±(3%+0.1Ω)	7.10 1,000Hr	—
Moisture resistance	±(2%+0.05Ω)	7.9 1,000Hr	—
Electrode solderability	>95% coverage	6.5 230°C/5 sec.	—
Insulation resistance	10M Ω MIN.	—	—
Dielectric withstanding voltage	500V. /minute	—	—
Vibration	±1%	—	—

Part No.	Product No.	Manufacturer	Description	Resistance data(Ω)	Tolerance(±)	Package
16122	0402-24.9Ω±1%	SYNTON	0402 Chip Resistors-Thick Film	24.9 ohm	+/-1%	10,000pcs/R



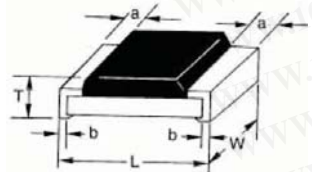
### FEATURES

The chip resistor is metal glazed thick film on high purity ceramic substrate and by protective glass paste, it provides uniform quality and stable characteristic. Latest automated system plus high technology enable us to turn out quality product with competitive price.

- High reliability and stability
- Lower assembly costs
- Reduced size of final equipment
- Higher component and equipment reliability

### Description

The resistors are constructed in a high grade ceramic body (aluminum oxide). Internal metal electrodes are added at each end and connected by a resistive paste that is applied to the top surface of the substrate. The composition of the paste is adjusted to give the approximate resistance required and the value is trimmed to within tolerance by laser cutting of this resistive layer. The resistive layer is covered with a protective coat. Finally, the two external and terminations are added. For ease of soldering the outer layer of these end terminations is a Lead-tin or Tin solder alloy.



STYLE	DIMENSIONS : (mm)				
	L	W	a	b	T
0402	1.00±0.10	0.50±0.05	0.20±0.10	0.25±0.10	0.35±0.05

### HARACTERISTICS

TEST ITEM	DESCRIPTION	TEST METHODS
Temperature Coefficient Of resistance	Temp:-55°C~±125°C Requirement: 5%1Ω~10Ω ≤±400PPM/°C 11Ω~≤200PPM/°C 1%10Ω~1mΩ≤±100ppm/°C	JIS C 5202.....clause 5.2 Natural resistance change per temperature degree centigrade. R2-R1 *10 <sup>6</sup> (PPM/°C) R1 (t2-t1)
Short-Time Over load	(WV)=√WR On5secs Requirement:(2.0%±0.1Ω)	JIS C 5202.....clause 5.5 Permanent resistance change after the application of a potential of 2.5 time RCWV. Or the max. Over load voltage respectively specified in the above list, whichever less for 5 secs
Strength Bending	Y/X=5/ FOR 10secs Requirement: (1.0%±0.05Ω)	JIS C 5202.....clause Bending Test : y/x= / 1 time
Resistance to Soldering Heat	Test Temp: 260°C±5°C For 10secs Requirement: (1.0%±0.05Ω)Max	JIS C 5202.....clause 6.4 Test temperature : 260±5°C Dip time : 10 secs
Temp cycling	-55°C(30mins)→+25°C(10~15mins) +125°C(30mins)→+25°C(10~15mins)5cycles Requirement:±(1.0%±0.05Ω)Max	JIS C 5202.....clause 7.4 Resistance change after continuous five cycles for duty cycle specified below
Humidity (stead state)	Temp:40°C±2°C R.H:90~95% Continuors 1000hrs Requirement:±(3.0%±0.1Ω)Max	JIS C 5202.....clause 7.5 Temporary resistance change after 1000hours exercise in a humidity test chamber controlled at 40±2°C and 90% to 95% relative humidity.



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