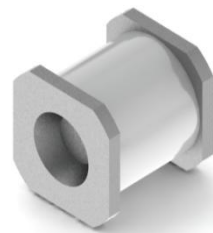


### Features

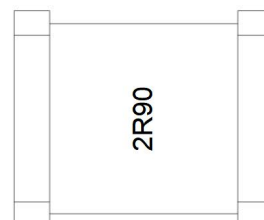
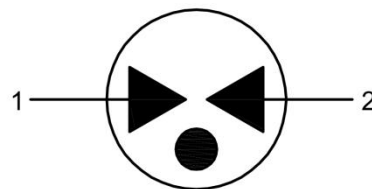
- Features non radioactive
- SMD type
- Low capacitance ( $\leq 1.0\text{pF}$ )
- High insulation resistance
- Size 5.5X6.0
- Storage and operating temperature:  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Material: RoHS compliant



### Applications

- Communication industry
- Video surveillance
- Outdoor lighting igniter
- Signal line protection
- Signal line protection
- Civil circuit appliances

### Schematic



Marking: 2R90

Color: Blue

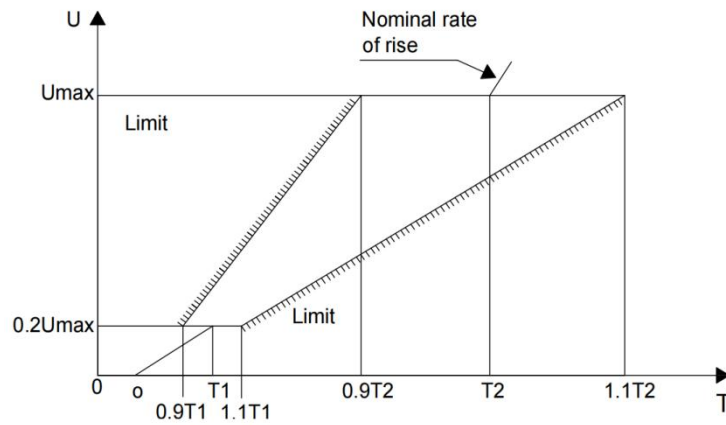
### Electrical Characteristics

Part Number	DC Spark-over Voltage	Max. Impulse Breakdown Voltage	Discharge Current (8/20 $\mu\text{s}$ )	AC Discharge Current	Impulse Life (10/1000 $\mu\text{s}$ )	Minimum Insulation Resistance		Max. Capacitance 1MHz
	100V/S	1KV/ $\mu\text{s}$	10 times	50Hz, 1S	100A	Test Voltage DC(V)	(G $\Omega$ )	(pF)
	%	V	KA	A	Times			
2R090SA-5	90V $\pm$ 30%	600	10	10	100	50	1.0	1.0

#### Notes:

- 1). Terms in accordance with ITU-T K.12 and GB/T 9043-2008
- 2). At delivery AQL 0.65 level II, DIN ISO 2859
- 3). DC spark-over voltage  $\pm 40\%$  after load

DC Breakdown Voltage



8/20 $\mu$ s, Test wave

$T_1 = 1.25T = 8\mu\text{s} \pm 20\%$

$T_2 = 20\mu\text{s} \pm 20\%$

10/700 $\mu$ s, Test wave

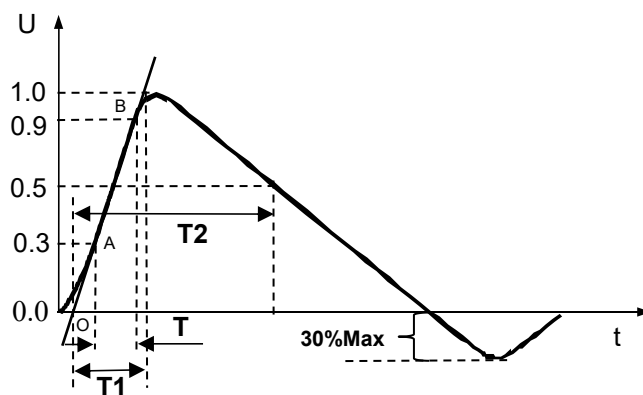
$T_1 = 1.67T = 10\mu\text{s} \pm 20\%$

$T_2 = 700\mu\text{s} \pm 20\%$

10/1000 $\mu$ s, Test wave

$T_1 = 1.67T = 10\mu\text{s} \pm 20\%$

$T_2 = 1000\mu\text{s} \pm 20\%$

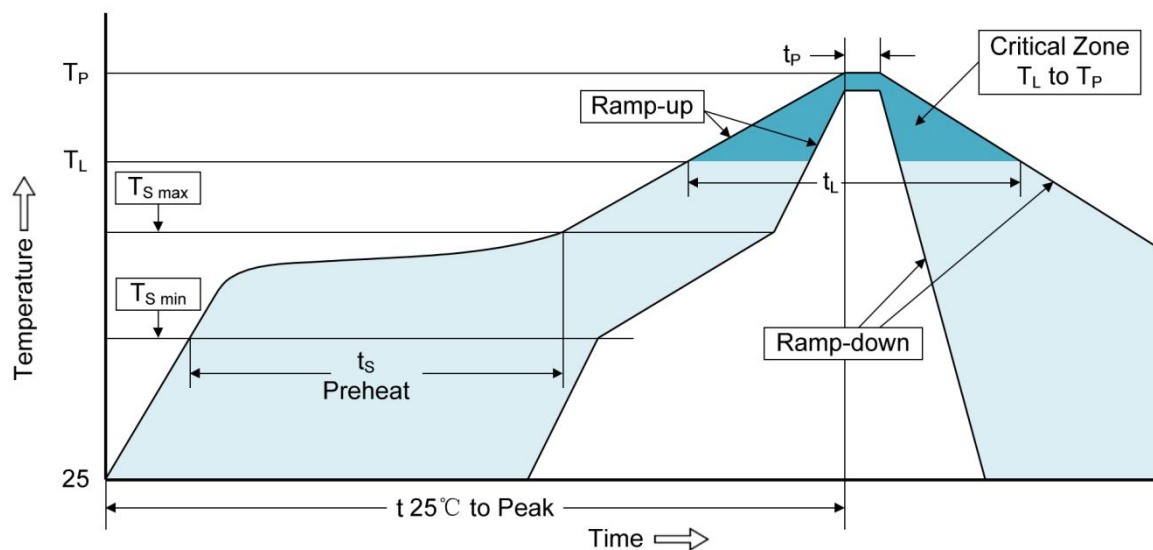


## Recommended Soldering Conditions

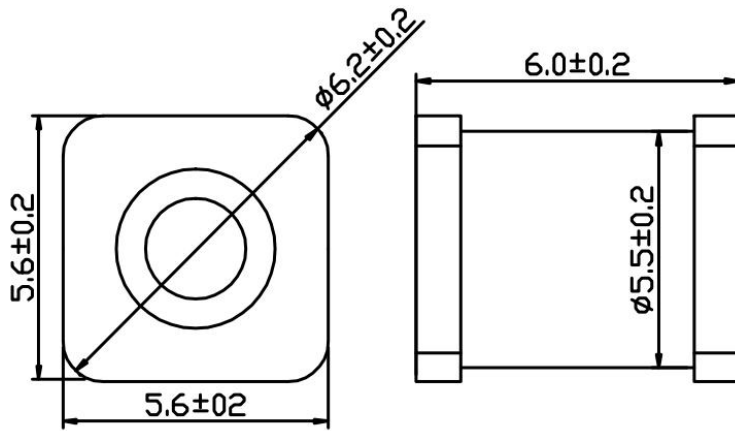
### ■ Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	3°C/second max.
Preheat -Temperature Min ( $T_S$ min) -Temperature Max ( $T_S$ max) -Time (min to max) ( $t_s$ )	150°C 200°C 60-180 seconds
$T_S$ max to $T_L$ -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature ( $T_L$ ) -Time ( $t_L$ )	217°C 60-150 seconds
Peak Temperature ( $T_P$ )	260°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

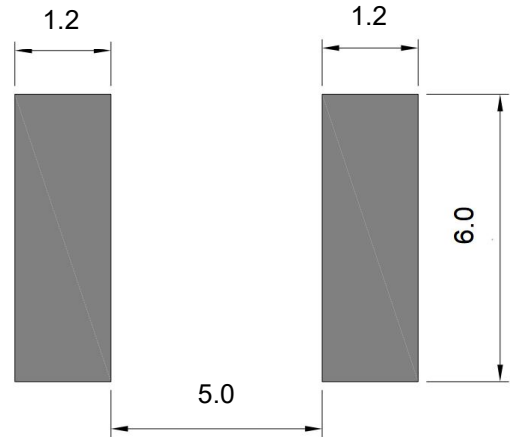
### ■ Reflow Soldering



Dimensions (unit: mm)

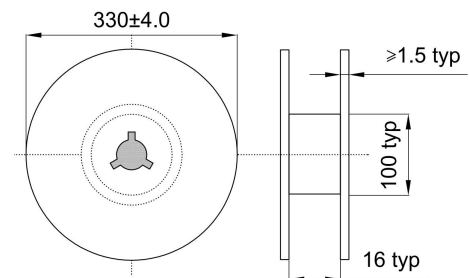


Tin-plated



Recommended Pad Size

Quantity: 900pcs/reel  
Color: Dark Blue



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