

■ **FEATURES**

- Operating Temperature: -40~+200°C
- High surge capability
- Enhanced performance in high voltage applications
- Flame proof coating meets UL-94V-0
- Untrimmed ceramic rod for superior high voltage, anti-surge characteristics

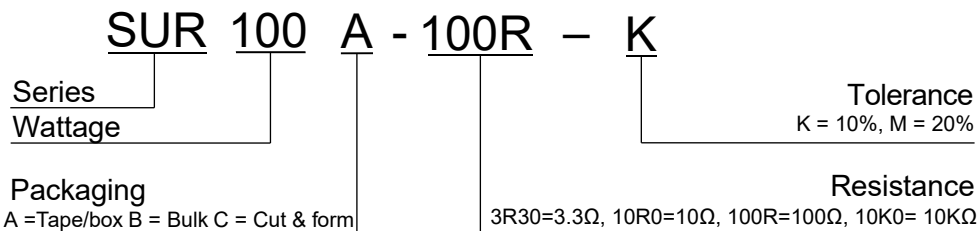
■ **DIMENSIONS**

Series	Power Rating	Dimensions (mm)				Resistance Range
		L	D	C	d	
SUR50	1/2 W	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	3.0Ω ~ 9.9Ω (±20% tolerance) 10Ω ~ 10KΩ (±20% or ±10% tolerance)
SUR100S	1 W	9.0±0.5	3.2±0.5	26±3.0	0.65±0.03	
SUR100	1 W	11.5±1.0	4.5±0.5	35±3.0	0.78±0.03	
SUR200S	2 W	11.5±1.0	4.5±0.5	35±3.0	0.78±0.03	
SUR200	2 W	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	
SUR300S	3 W	15.5±1.0	5.0±0.5	32±3.0	0.78±0.03	
SUR300	3 W	17.5±1.0	6.0±0.5	35±3.0	0.78±0.03	
SUR500S	5 W	17.5±1.0	6.0±0.5	35±3.0	0.78±0.03	
SUR500	5 W	24.5±1.0	8.0±0.5	35±3.0	0.78±0.03	
SUR700S	7 W	24.5±1.0	8.0±0.5	35±3.0	0.78±0.03	

■ **MAXIMUM RATINGS** (Operating Temperature is -40°C through +200°C)

series		Max Working Voltage	Max Overload Voltage	Dielectric Voltage	Max Surge Voltage
SUR50	SUR100S	200V	300V	500V	3,000V
SUR100	SUR200S	200V	400V	500V	3Ω ~6.2Ω = 10,000V
					6.8Ω ~ 10Ω = 7,000V
					11Ω ~10KΩ = 5,000V
SUR200	SUR300S	300V	600V	500V	10,000V
SUR300	SUR500S	400V	800V	500V	10,000V
SUR500	SUR700S	500V	1000V	500V	12,000V

■ **PART NUMBER EXAMPLE**



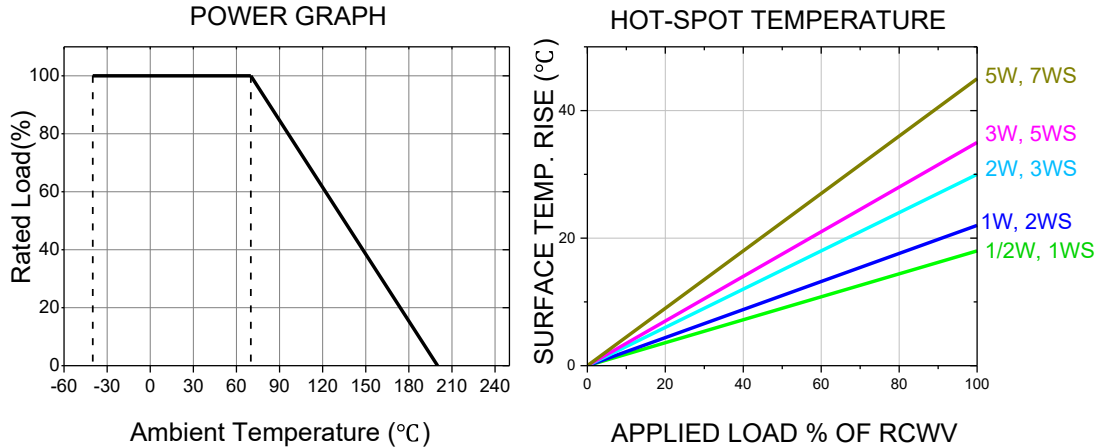
Resistor body Color:

¼ watt through 3 watt small size is Brown or Gray

3 watt through 7watt small size is gray

■ CHARACTERISTICS (TYPICAL)

Rated continuous Working Voltage (RCWV) = $\sqrt{\text{POWER RATING} * \text{RESISTANCE VALUE}}$



TEST ITEMS	Test Methods	SPECIFICATIONS
Short time overload	Rated Voltage X 2.5 or Max. overload Vol., whichever is lower, for 5sec.	± (1.0%+0.05Ω)
TEMPERATURE COEFFICIENT(T.C.R.)	Resistance value at room Temperature & room Temperature +100°C	±300ppm
Anti-Surge Characteristics	Discharge Test: Max Anti Surge 1000pf capacitor Discharge Pulse 50 time (1 pulse / 5sec. max) 	1/2WS=1,000V 1/2W, 1WS=3,000V 1W, 2WS, 3Ω~6.2Ω=10,000V 1W, 2WS, 7Ω~10Ω=7,000V 1W, 2WS, 11Ω~10,000Ω=5,000V 2W, 3WS=10,000V 3W, 5WS=10,000V 5W, 7WS=12,000V ± (20% + 0.05Ω)
Resistance to Soldering Heat	260°C±5°C, 10s ±1s or 350°C±10°C, 3.5s±0.5s	± (1.0%+0.05Ω)
Moisture Resistance	40°C±2°C, 90%~95%RH, 1000h; 90 min 【ON】 30 min 【OFF】	± (5.0%+0.05Ω)
Terminal Strength	Direct load for 10 sec. In the direction off the terminal leads.	Tensile: ≥2.5kg
Load Life	1000hours at rated voltage, 40°C; 90 min 【ON】 30 min 【OFF】	± (5.0%+0.05Ω)

Reference Standards IEC 60 -1115
 Recommended Storage Temperature is 23 +/-3°C
 Recommended Storage Humidity is <80% RH
 Resistance marking is by EIA standard color bands