

Ceramic Composition Resistor Radial Leaded Type

MJV Series

MERITEK

FEATURE

- Non-Inductive Ceramic Composition Resistor Element
- High Energy Handling Capability
- Low Thermal Stress Construction Design
- Ideal for High Peak Power or Impulse Energy Application
- Excellent Stability at Environmental Conditions
- Flame ability Classification: UL94-V0
- Application: Motor Drives, Power Supply, Power Conversion



ELECTRICAL CHARACTERISTICS AND DIMENSIONS

Rated Power	Resistance Range	Tolerance Range	Impulse Voltage	Energy	Dimensions (mm)						
					D Max	L Max	F Typ	H Max	LL Max	d ±0.1	Fig
2.0W	3.3~10KΩ	K, M	1000V	250J	13	15	12.5	22	4.7	1.0	1
2.5W	4.7~15KΩ	K, M	1500V	400J	13	20	17.5	19	4.7	1.0	1
3.5W	1.0~3.3KΩ	K, M	1000V	700J	21	15	12.5	26	4.7	1.0	1
4.5W	2.2~6.8KΩ	K, M	2000V	1400J	21	25	22.5	26	4.7	1.0	1
5.5W	1.5~4.7KΩ	K, M	2500V	2800J	26	30	27.0	33	16.7	1.0	2

Notes:

1. Operating Temperature: -55°C~150°C
2. Derating: Derates linearly from 100% at 50°C to 0% at 150°C
3. Temperature Rise: 100°C @ 100% rated power, 50°C ambient
4. Resistance Range: E12 Standard Values ±10%; Custom value available upon request.
5. Rated Condition: Rated Power: in Free Air, 40°C Ambient; Impulse Voltage rated in Air; Energy rated per single Impulse

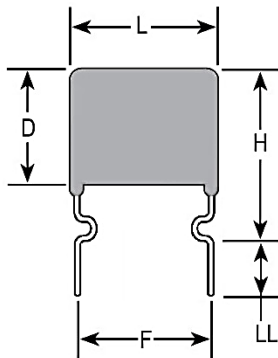


Fig 1

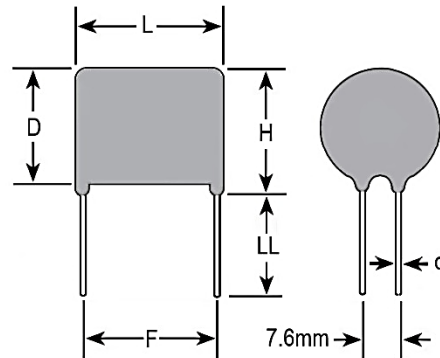


Fig 2

PART NUMBERING SYSTEM

MJV 5R5W 5R6K xx
(1) (2) (3) (4)

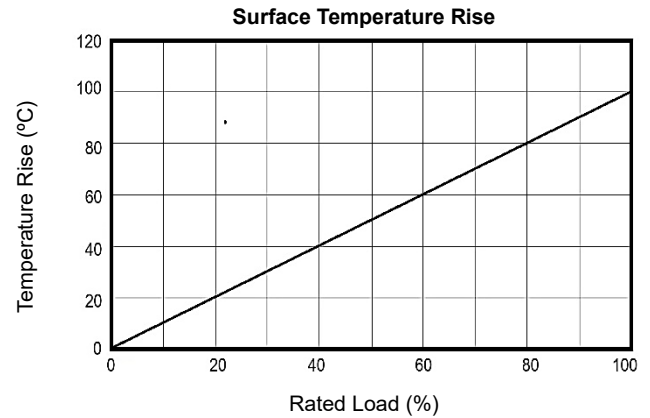
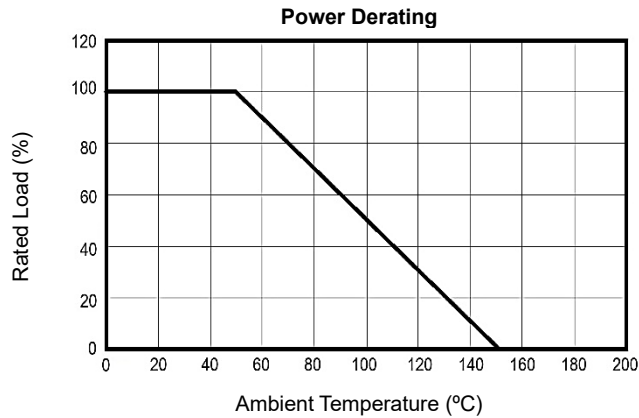
No	Item	Code	Description
(1)	Product Code	MJV	Ceramic Composition Resistor series, Radial Leaded type.
(2)	Power Rating	5R5W	5.5W 2.0W: 2R0W, 3.5W:3R5W
(3)	Resistance	5R6K	5.6Ω ±10% (K) First two digits: Significands, Third: Multiplier
(4)	Internal Code	xx	Internal Control or Project Reference

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POWER DERATING CURVE AND SURFACE TEMPERATURE RISE



RELIABILITY TEST CONDITION AND REQUIREMENT

Item	Condition	Requirement
Operating Temperature	-55°C~150°C	--
Load Life	MIL-STD-202F, method 108A.except 50°C, 1000 hrs.@ rated power; 1.5 hrs. ON, 0.5 hrs. OFF	$\Delta R/R \leq \pm 5\%$
Single Pulse Energy	Single pulse, capacitor discharge at Rated Energy; 350VDC for 2.0W, 2.5W and 3.5W series; 650VDC for 4.5W and 5.5W.	$\Delta R/R \leq \pm 1.5\%$
Repetitive High Voltage Pulsing	10 Joules @ 5.0KV, 10,000 cycles	$\Delta R/R \leq \pm 2.0\%$
Short-time Overload	10 x rated power. 5 sec. ON, 5sec. OFF, 5 cycles	$\Delta R/R \leq \pm 1.5\%$
Short-term High Temperature Expose	+250°C for 30 seconds	$\Delta R/R \leq \pm 1.5\%$
High Temperature Expose	+150°C for 1000 hours	$\Delta R/R \leq \pm 1.5\%$
Thermal Shock Cycle	MIL-STD-202F, method 107D. -55°C to +125°C, 5 cycles	$\Delta R/R \leq \pm 2.0\%$
Moisture Resistance	40°C, 90% to 95% RH for 1000 hrs.	$\Delta R/R \leq \pm 2.0\%$

*Specifications subject to change without notice.