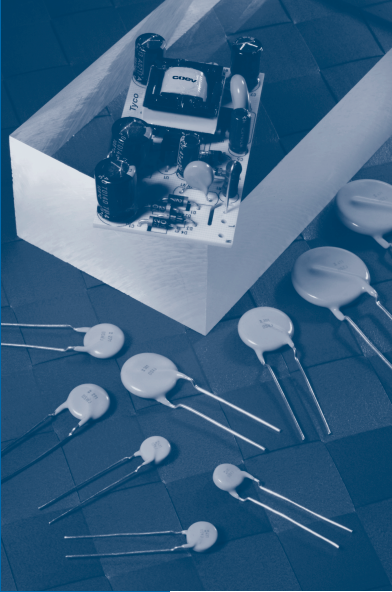


Radial-leaded Metal Oxide Varistor Devices



Raychem Circuit Protection's ROV (Radial-leaded Metal Oxide Varistor) devices help to provide protection from overvoltage faults such as lightning, power contact and power induction, for a wide variety of power systems. Suitable for a broad range of applications including, but not limited to, security systems, power supplies, surge strips, motors and telecommunications equipment, the ROV devices help to protect valuable equipment from potential power surge damage by clamping high-energy, short-duration impulses. The ROV devices have high current handling and energy absorption capability and fast response times to help protect against transient faults.

The ROV overvoltage protection devices expand Raychem Circuit Protection's portfolio and can offer the circuit board designer a complete overcurrent/overvoltage solution. For example, pairing an ROV device with Raychem Circuit Protection's PolySwitch™ LVR overcurrent protection devices can help provide a completely resettable circuit protection solution for power supplies, surge strips and control board transformers. In addition, ROV devices can be combined with PolySwitch devices to help provide protection for electric motors, telecom equipment and various other systems.

Benefits:

- Helps provide overvoltage fault protection for a wide variety of power systems
- Helps designers meet UL (UL1414 and UL1449 2nd Edition), CSA and VDE standards
- Helps reduce warranty and service costs
- Low cost (\$/Joule)

Features:

- Various diameter sizes: 5mm, 7mm, 10mm, 14mm, 20mm
- Broad varistor voltage range: 18V – 1800V
- Various surge capabilities: standard, high surge, extra high surge
- High current handling and energy absorption capability
- Fast response time
- Low leakage current
- Various lead types: straight, kinked, other special lead types
- Various packaging options: bulk, tape and reel, ammo pack

Application examples:

- Power systems
- Surge strips
- Security systems
- Motor protection
- Telecommunications equipment
- Automotive electrical systems
- Household appliances

Varistor Parameter Table	Varistor Voltage ¹		Maximum Allowable Voltage		Maximum Clamping Voltage ²	Maximum Surge Current (8x20us)			Energy (10x1000us)		
	(V _{DC})	(AC V _{rms})	(V _{DC})	(V _{DC})		(A)			(J)		
						₋₃	H ³	E ³	₋₃	H ³	E ³
ROV05-180M – ROV05-680K ROV05H180M – ROV05H680K	18-68	11-40	14-56	40-150	100	250	—	0.6-2.1	0.7-2.6	—	
ROV07-180M – ROV07-680K ROV07H180M – ROV07H680K					250	500	—	1.2-4.3	1.5-5.4	—	
ROV10-180M – ROV10-680K ROV10H180M – ROV10H680K				36-135	500	1000	—	2.4-8.5	2.6-9.8	—	
ROV14-180M – ROV14-680K ROV14H180M – ROV14H680K					1000	2000	—	4.7-17.0	5.2-20.0	—	
ROV20-180M – ROV20-680L ROV20H180M – ROV20H680L					2000	3000	—	7.0-24.0	13.0-49.0	—	
ROV05-820K – ROV05-751K ROV05H820K – ROV05H751K					82-750	50-460	65-615	145-1290	400	800	—
ROV07-820K – ROV07-821K ROV07H820K – ROV07H821K	82-820	50-510	65-670	135-1355	1200	1750	—	5.5-47.0	7.0-60.0	—	
ROV10-820K – ROV10-182K ROV10H820K – ROV10H112K	82-1800	50-1000	65-1465	135-2970	2500	3500	—	11.0-174.0	14.0-155.0	—	
ROV14-820K – ROV14-182K ROV14H820K – ROV14H112K					4500	6000	—	22.0-348.0	28.0-310.0	—	
ROV20-820K – ROV20-182K ROV20H820K – ROV20H112K					6500	10000	—	44.0-695.0	56.0-620.0	—	
ROV14E201K – ROV14E361K ROV20E201K – ROV20E361K					200-360	130-230	170-300	340-595	—	—	6500
					—	—	12500	—	—	168-302	

1) The Varistor Voltage is measured at specified current values:

- 5mm devices: voltage measured at 0.1mA
- 7, 10, 14, 20mm devices: voltage measured at 1.0mA

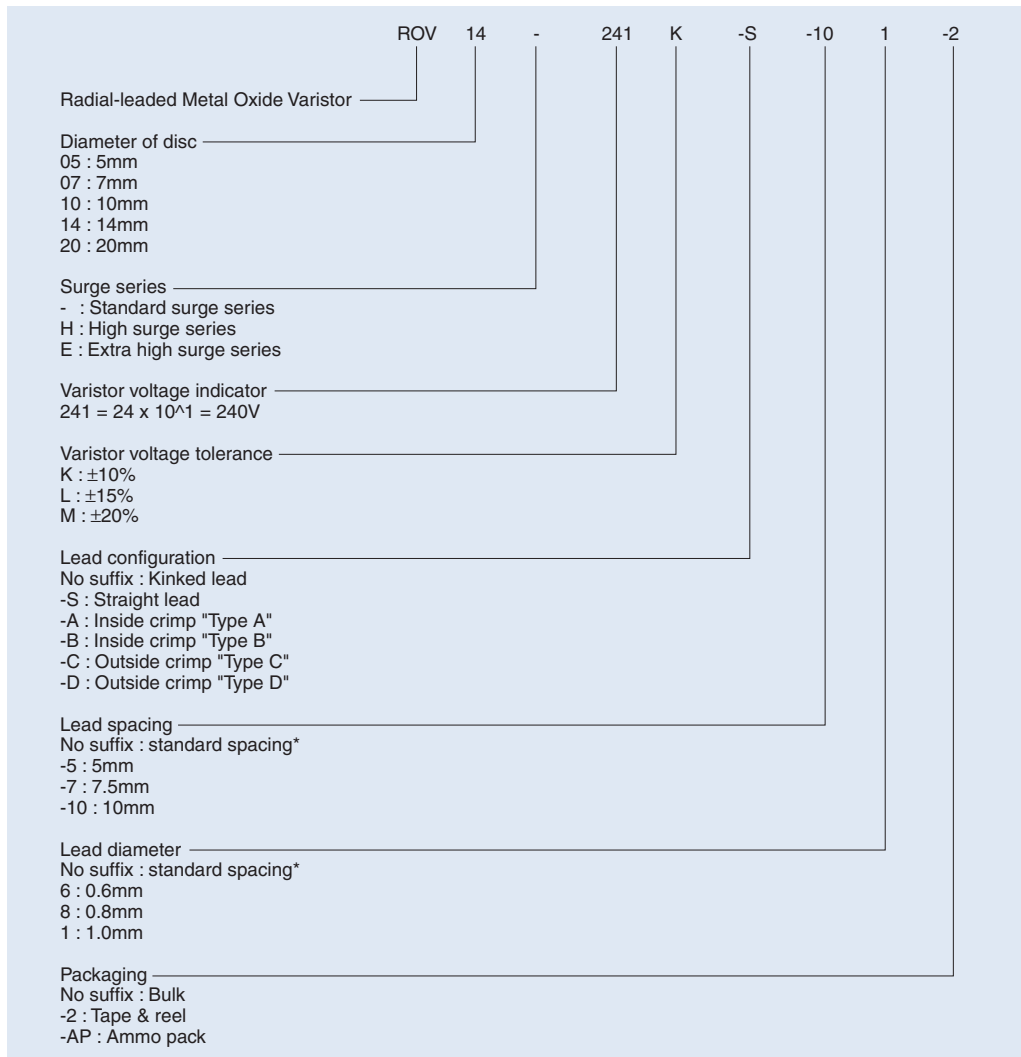
2) The Maximum Clamping Voltage values are measured at the following current values:

	180M-680K	820K and above
• 5mm devices:	1A	5A
• 7mm devices:	2.5A	10A
• 10mm devices:	5A	25A

	180M-680K	820K and above
• 14mm devices:	10A	50A
• 20mm devices:	20A	100A

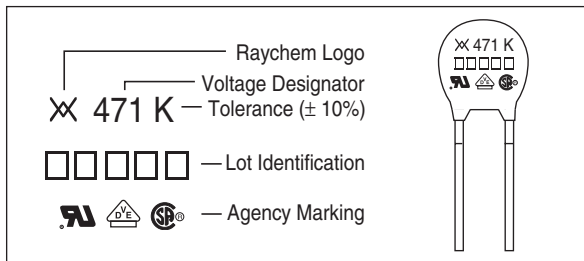
3) - = Standard series devices; H = High surge series; E = Extra high surge series

Part Numbering Scheme



* Please visit us at www.tycopowercomponents.com for detailed product information.

Device Marking



General Characteristics

Storage temperature	-40° to +125°C
Maximum operating temperature	-40° to +85°C
Maximum working surface temperature	+115°C
Temperature coefficient of voltage	0 to +0.05% / °C max.
Insulation resistance of coating (@500 VDC)	Over 1000MΩ
Maximum response time	25ns
Lead material	Sn/Pb Plated Copper

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