## **Overcurrent & Overvoltage Protection Device**



RoHS

**Compliant** 



# **Applications**

- · LED Lighting System
- · PLC network adapters
- · AC Line Power Supplies
- AC/DC power supplies and Modem power supply
- · White goods, appliances, industrial controls

#### **Features**

- IEC61000-4-2 Electrostatic discharge immunity test
- IEC61000-4-4 Electrical fast transient/burst immunity test
- IEC61000-4-5 Surge immunity test
- · Over Current Protection
- · Over Voltage Protection
- · Prevent thermal runaway Occurs

# **Specification**

Maximum Continuous Operating Voltage : 240VAC

Maximum Limited Duration Voltage : 400VAC~600VAC

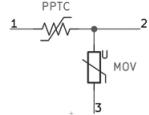
Maximum Limited Duration Current : 10A~40A
Temperature Range : -40°C to 85°C

#### Material

Lead material :Tin plated copper, 22 AWG.
Soldering characteristics : MIL-STD-202, Method 208E.

Insulating coating : Flame retardant epoxy, meets UL-94V-0 requirement.

### **Electrical Schematic**



### Overcurrent (terminals 1-2) Electrical Characteristics (23°C)

	Hold Current	Trip Current	Time to Trip			Resistance		
Part Number	Hold Current		Current	Typ. Time	Max. Time	RMIN	RMAX	R1 <sub>MAX</sub>
	(A)	(A)	(A)	(Sec)	(Sec)	Ohms	Ohms	Ohms
MCMOV10271-T015	0.15	0.3	1	0.9	3	6.5	14	16
MCMOV10431-T015	0.15							
MCMOV14431-T035	0.35	0.75	3	0.5	2	1.4	2.2	2.8
MCMOV14431-T075	0.75	1.5	7	0.9	1.2	0.37	0.8	1

# Overcurrent (terminals 2-3) Electrical Characteristics (23°C)

Part Number	Varistor Voltage V@1mA		DC Resistance @100V	Maximum Clamping Voltage @25A	Typical Power	
	V DC	Tolerance	МΩ	V DC	Pd, W	
MCMOV10271-T015	260	+14% / -7%		455	0.25	
MCMOV10431-T015			>10		0.25	
MCMOV14431-T035	430	+10% / -10%	>10	710	0.6	
MCMOV14431-T075						

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### **Product Dimensions**

Figure 1

A

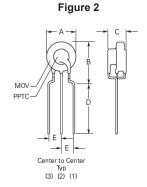
C

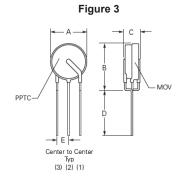
C

Center to Center

Typ

(3) (2) (1)



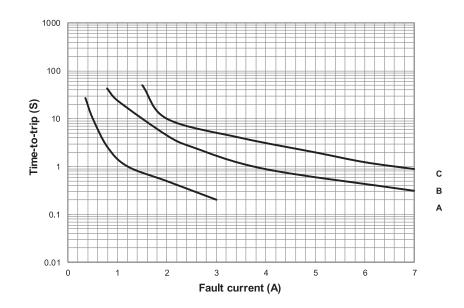


Part Number	Figure	Α	В	С	D		E	F
rait Number		Maximum	Maximum	Maximum	Min	Max	Nominal	Maximum
MCMOV10271-T015	1	40	15	6.6	6		2.5	12
MCMOV10431-T015	2	12	17	7.4	8.5	11.5	5.1	
MCMOV14431-T035	2	16	21		3	5		
MCMOV14431-T075	3	10					2.5	

# Typical Time-To-Trip at 23°C

A = MCMOV10271-T015 A = MCMOV10431-T015 B = MCMOV14431-T035

C = MCMOV14431-T075

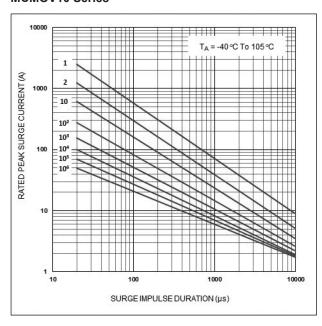


## **Overcurrent & Overvoltage Protection Device**

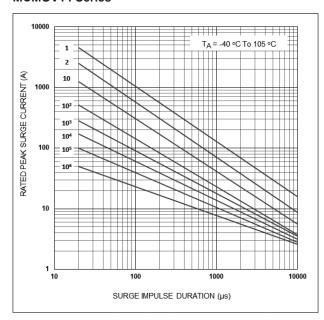


### Impulse Life Time Rating Curve

#### **MCMOV10 Series**



#### **MCMOV14 Series**

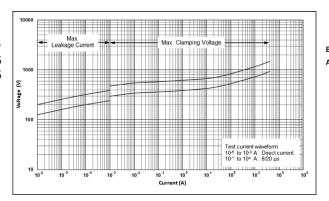


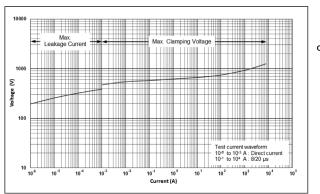
#### **V-I Curves**

A = MCMOV10271-T015

B = MCMOV10431-T015

C = MCMOV14431-T035 MCMOV14431-T075





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## **Part Number Table**

Description	UL Approval	Part Number
Circuit Protected MOV, 260V DC, 0.15A	No	MCMOV10271-T015
Circuit Protected MOV, 430V DC, 0.15A	No	MCMOV10431-T015
Circuit Protected MOV, 430V DC, 0.35A	Yes	MCMOV14431-T035
Circuit Protected MOV, 430V DC, 0.75A	Yes	MCMOV14431-T075

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