Current Protection MOV Device/CMOV : FCMOV 10 series

1. Summary

(a) RoHS Compliant (Lead Free) Product
(b) Operation Voltage: 130Vac to 485Vac
(c) Maximum Peak Pulse Current for 8x20us Current Wave, single pulse: 250A
(d) Temperature Range : -40℃ to 85℃

2. Agency Recognition

UL: UL1449 In Process

3. Feature

- Compliance to UL1449
- RoHS compliant Halogen Free and Lead–free available
- Wave solderable
- -40°C to +85°C operating temp range

4. Applications

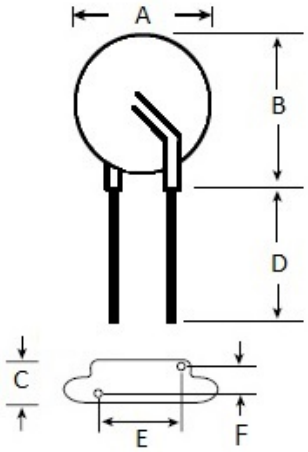
- Surge protection in consumer electronics
- Surge protection in industrial electronics.
- Surge protection in electronic home appliances
- Relay and Electromagnetic valve surge absorption

5. FCMOV Electrical Characteristics (25℃)

Part Number	Disc Dia.	Maximum Continuous Voltage		Varistor Voltage (@1mA)			Maximum Clamping Voltage @Test Current (@8/20μs)		Maximum Energy (@2ms)	Maximum Peak Current (@8/20μs)		Abnormal Overvoltage Surge Protection Specification				Typical Capacitance (@1KHz)
		ACrms (V)	DC(V)	Vn(Vdc)	Min.	Max.	Vc(V)	Ip(A)	Max.	1x Pulse	15x Pulse	Vmax (AC)	Imax	Typical Reaction Time	Surface Temp.	
	mm	V(AC)	V(DC)	V(DC)	V(DC)	V(DC)	V(DC)	A	J	A	A	(V)	(A)	(Sec)	(℃)	pF
FCMOV10201	10	130	170	200	185	225	410	25	7	250	150	380	40	10	110	625
FCMOV10221	10	140	180	220	198	242	430	25	8	250	150	380	40	10	110	570
FCMOV10241	10	150	200	240	216	264	450	25	9	250	150	380	40	10	110	525
FCMOV10271	10	175	225	270	243	297	480	25	10	250	150	380	40	10	110	470
FCMOV10301	10	195	250	300	270	330	550	25	11	250	150	380	40	10	110	415
FCMOV10331	10	215	275	330	297	363	570	25	12	250	150	380	40	10	110	350
FCMOV10361	10	230	300	360	324	396	600	25	13	250	150	400	40	10	110	350
FCMOV10391	10	250	320	390	351	429	650	25	14	250	150	480	40	10	110	325
FCMOV10431	10	275	350	430	387	473	710	25	16	250	150	480	40	10	110	290
FCMOV10471	10	300	385	470	423	517	775	25	17	250	150	480	40	10	110	260
FCMOV10511	10	320	420	510	459	561	840	25	18	250	150	480	40	10	110	240
FCMOV10561	10	350	460	560	504	616	915	25	19	250	150	600	40	10	110	200
FCMOV10621	10	395	510	620	558	682	1020	25	21	250	150	600	40	10	110	170
FCMOV10681	10	420	560	680	612	748	1120	25	22	250	150	690	40	10	110	160
FCMOV10751	10	465	615	750	675	825	1235	25	24	250	150	690	40	10	110	150
FCMOV10781	10	485	640	780	702	858	1290	25	25	250	150	690	40	10	110	150

NOTE : Specification subject to change without notice.

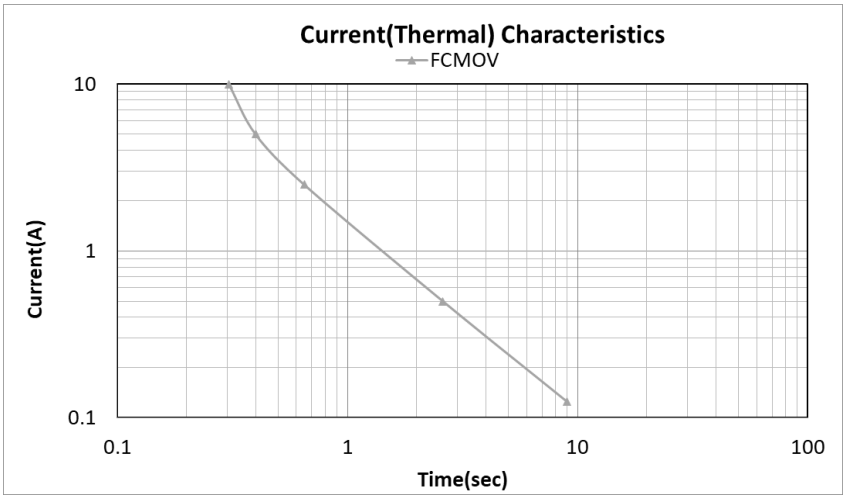
6. Production Dimensions (millimeter)



Lead Size :20AWG
Φ 0.81 mm Diameter

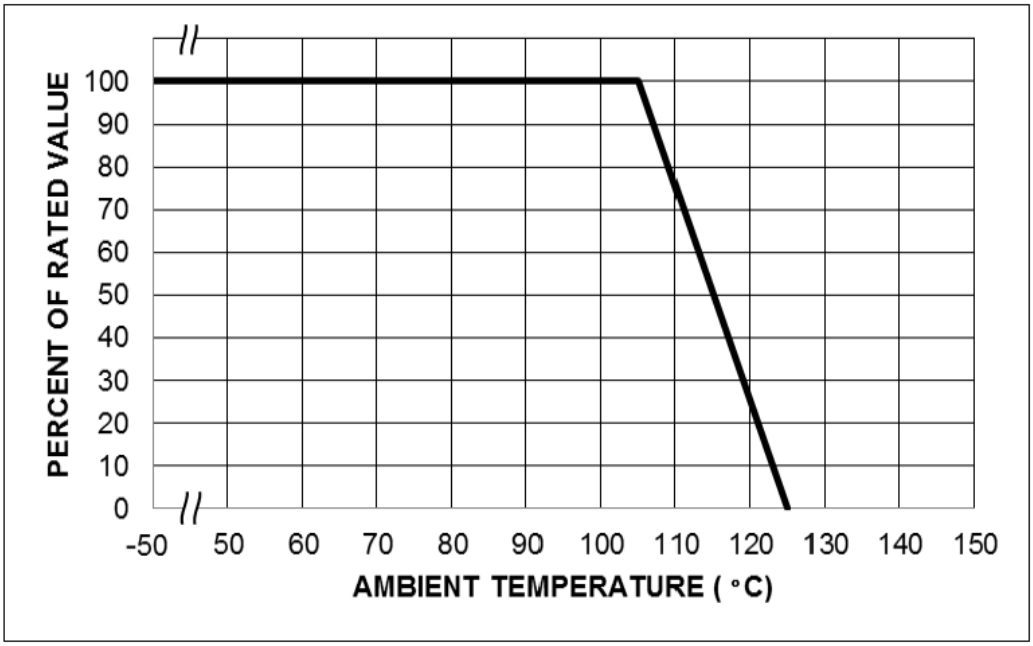
Part Number	A		B		C	D	E		F	
	Min.	Max.	Min.	Max.	Max.	Min.	Min.	Max.	Min.	Max.
FCMOV10201	10.5	14.0	13.0	18.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV10221	10.5	14.0	13.0	18.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV10241	10.5	14.0	13.0	18.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV10271	10.5	14.0	13.0	18.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV10301	10.5	14.0	13.0	18.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV10331	10.5	14.0	13.0	18.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV10361	10.5	14.0	13.0	18.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV10391	10.5	14.0	13.0	18.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV10431	10.5	14.0	13.0	18.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV10471	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV10511	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV10561	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV10621	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV10681	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	4.5	7.5
FCMOV10751	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	5.0	8.0
FCMOV10781	10.5	14.0	13.0	18.0	11.0	25.4	6.5	8.5	5.0	8.0

7. Current(Thermal) Characteristics



8. Power Derating Curve

Should transients occur in rapid succession, the average power dissipation is the energy (watt-seconds) per pulse times the number of pulses per second. The power so developed must be with the specifications shown on the Device Ratings and Specifications Table for the specific device. The operating values of a MOV need to be derated at high temperatures as shown above. Because varistors only dissipate a relatively small amount of average power they are not suitable for repetitive applications that involve substantial amounts of average power dissipation.



9. Material Specification

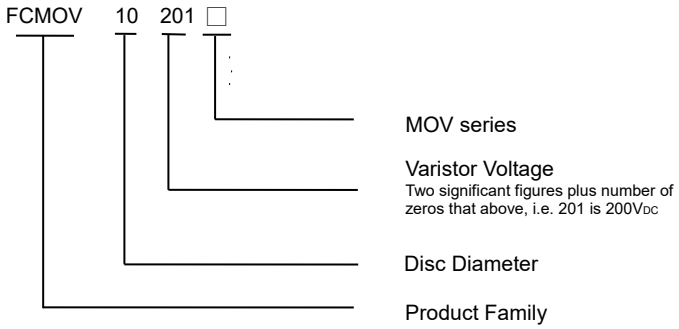
Lead material：Copper clad steel wire, 20 AWG.

Soldering characteristics: MIL-STD-202, Method 208E.

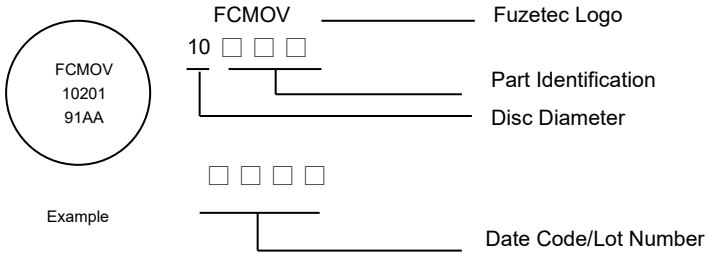
Insulating coating: Flame retardant epoxy, meets UL-94V-0 requirement.

10. Marking System

Part Numbering System



Part Marking System



Note: Font on Marking may look slightly different due to fine turnings of each Marking printer.

Warning: -Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.

-Device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.

- Avoid contact of CMOV device with chemical solvent. Prolonged contact will damage the device performance.