Current Protection MOV Device/CMOV : FCMOV 14 Advance series

Preliminary

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: 2000A
(d) Temperature Range : -40℃ to 85℃

2. Agency Recognition

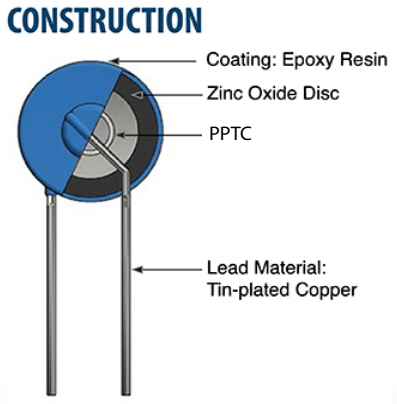
UL: File No. E515006
C-UL: File No. E515006

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

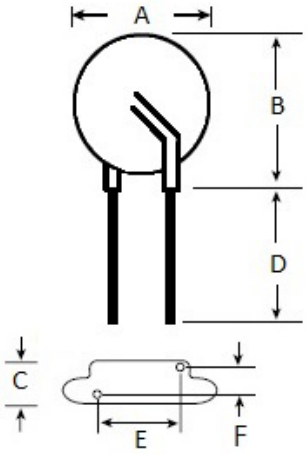
- Surge protection in consumer electronics
- Surge protection in industrial electronics.
- Surge protection in electronic home appliances
- Relay and Electromagnetic valve surge absorption



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.	C
	mm	V(AC)	V(DC)	V(DC)	V(DC)	V(DC)	V(DC)	A	J	A	A	(V)	(A)	(Sec)	(℃)	pF
FCMOV14201	14	130	170	200	185	225	450	50	14	2000	1000	305	50	10	110	1000
FCMOV14221	14	140	180	220	198	242	470	50	16	2000	1000	305	50	10	110	900
FCMOV14241	14	150	200	240	216	264	490	50	17	2000	1000	305	50	10	110	800
FCMOV14271	14	175	225	270	243	297	520	50	19	2000	1000	380	50	10	110	700
FCMOV14301	14	195	250	300	270	330	530	50	21	2000	1000	380	50	10	110	600
FCMOV14331	14	215	275	330	297	363	570	50	23	2000	1000	380	50	10	110	580
FCMOV14361	14	230	300	360	324	396	600	50	25	2000	1000	400	50	10	110	550
FCMOV14391	14	250	320	390	351	429	650	50	28	2000	1000	480	50	10	110	500
FCMOV14431	14	275	350	430	387	473	710	50	32	2000	1000	480	50	10	110	450
FCMOV14471	14	300	385	470	423	517	775	50	34	2000	1000	480	50	10	110	400
FCMOV14511	14	320	420	510	459	561	840	50	36	2000	1000	480	50	10	110	380
FCMOV14561	14	350	460	560	504	616	915	50	39	2000	1000	600	50	10	110	380
FCMOV14621	14	395	510	620	558	682	1020	50	43	2000	1000	600	50	10	110	350
FCMOV14681	14	420	560	680	612	748	1120	50	46	2000	1000	690	50	10	110	350
FCMOV14751	14	465	615	750	675	825	1235	50	50	2000	1000	690	50	10	110	330
FCMOV14781	14	485	640	780	702	858	1290	50	52	2000	1000	690	50	10	110	330

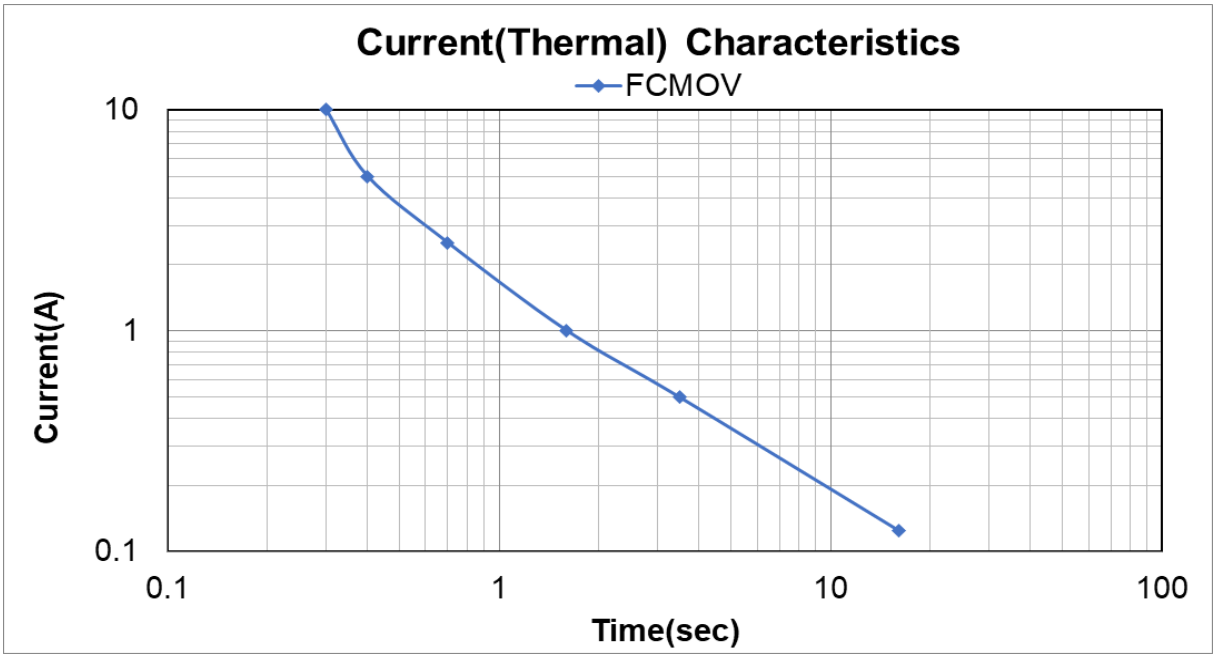
6. Production Dimensions (millimeter)



Lead Size :20AWG
0.81 mm Diameter

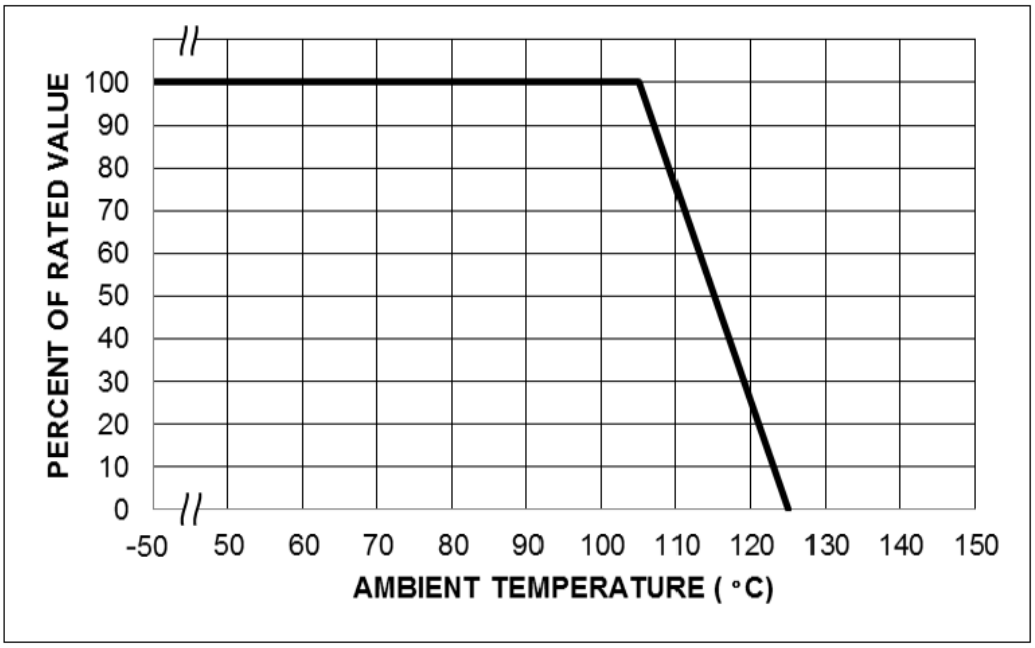
Part Number	A		B		C	D	E		F	
	Min.	Max.	Min.	Max.	Max.	Typ.	Min.	Max.	Min.	Max.
FCMOV14201	13.5	17.0	17.0	22.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV14221	13.5	17.0	17.0	22.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV14241	13.5	17.0	17.0	22.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV14271	13.5	17.0	17.0	22.0	9.0	25.4	6.5	8.5	2.0	5.0
FCMOV14301	13.5	17.0	17.0	22.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV14331	13.5	17.0	17.0	22.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV14361	13.5	17.0	17.0	22.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV14391	13.5	17.0	17.0	22.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV14431	13.5	17.0	17.0	22.0	9.5	25.4	6.5	8.5	2.5	5.5
FCMOV14471	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV14511	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV14561	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV14621	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	4.0	7.0
FCMOV14681	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	4.5	7.5
FCMOV14751	13.5	17.0	17.0	22.0	11.0	25.4	6.5	8.5	5.0	8.0
FCMOV14781	13.5	17.0	17.0	22.0	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

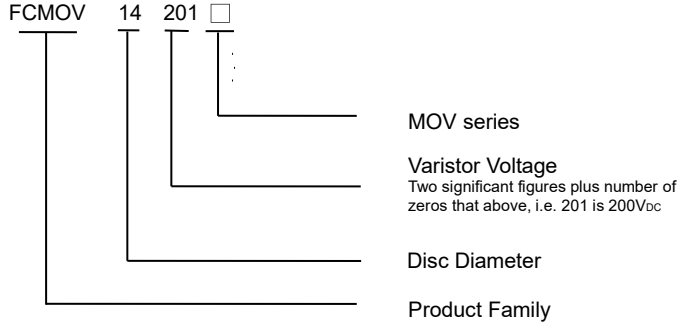
Lead material：Copper clad steel wire, 20 AWG.

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

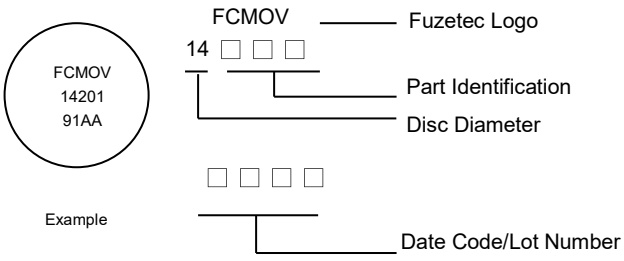
Insulating coating: Flame retardant epoxy, meets UL-94V-0 requirement.

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.