

CMF5.0A  
THRU  
CMF170A



UNI-DIRECTIONAL SURFACE MOUNT  
TRANSIENT VOLTAGE SUPPRESSOR  
200 WATTS, 5.0 THRU 170 VOLTS

Specified by  
STAND-OFF VOLTAGE



SOD-123F CASE

**APPLICATIONS:**

- DIGITAL CAMERAS
- CELL PHONES AND ACCESSORIES
- DESKTOP AND LAPTOP COMPUTERS
- PDA's

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

Peak Pulse Power (10/1000 $\mu\text{s}$  Waveform)  
ESD Voltage (HBM)  
Operating and Storage Junction Temperature

**SYMBOL**

$P_{PP}$  200  
 $V_{ESD}$  25  
 $T_J, T_{stg}$  -65 to +150

**UNITS**

W  
kV  
 $^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_J=25^\circ\text{C}$  unless otherwise noted)

PART NO.	Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Marking Code
	$V_{RWM}$	$V_{BR} @ I_T$		$I_T$	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	$I_{PP}$	
	(V)	MIN (V)	MAX (V)	(mA)	( $\mu\text{A}$ )	(V)	A	
CMF5.0A	5.0	6.4	7.0	10	400	9.2	21.7	CM05A
CMF6.0A	6.0	6.67	7.37	10	400	10.3	19.4	CM06A
CMF6.5A	6.5	7.22	7.98	10	250	11.2	17.9	CM065
CMF7.0A	7.0	7.78	8.6	10	100	12	16.7	CM07A
CMF7.5A	7.5	8.33	9.21	1.0	50	12.9	15.5	CM075
CMF8.0A	8.0	8.89	9.83	1.0	25	13.6	14.7	CM08A
CMF8.5A	8.5	9.44	10.4	1.0	10	14.4	13.9	CM085
CMF9.0A	9.0	10	11.1	1.0	5.0	15.4	13	CM09A
CMF10A	10	11.1	12.3	1.0	2.5	17	11.8	CM10A
CMF11A	11	12.2	13.5	1.0	2.5	18.2	11	CM11A
CMF12A	12	13.3	14.7	1.0	2.5	19.9	10.1	CM12A
CMF13A	13	14.4	15.9	1.0	1.0	21.5	9.3	CM13A
CMF14A	14	15.6	17.2	1.0	1.0	23.2	8.6	CM14A
CMF15A	15	16.7	18.5	1.0	1.0	24.4	8.2	CM15A
CMF16A	16	17.8	19.7	1.0	1.0	26	7.7	CM16A
CMF17A	17	18.9	20.9	1.0	1.0	27.6	7.2	CM17A
CMF18A	18	20	22.1	1.0	1.0	29.2	6.8	CM18A

R0 (14-October 2005)

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMF5.0 Series of Transient Voltage Suppressors are designed to protect sensitive electronic components from high voltage, high-energy transients. High surge capability, low impedance, low clamping voltage, fast response time and small size make this an excellent choice for industrial/consumer applications, such as cell phones, power supplies and portable devices.

**MARKING CODE: SEE ELECTRICAL CHARACTERISTICS TABLE**

**FEATURES:**

- STAND-OFF VOLTAGE 5 - 170 VOLTS
- VERY LOW LEAKAGE CURRENT
- LOW CLAMPING VOLTAGE
- 200 WATT PEAK POWER DISSIPATION
- SMALL, HIGH THERMAL EFFICIENCY, SOD-123F FLAT LEAD PACKAGE

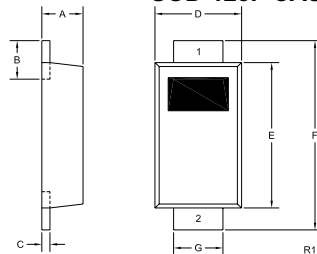
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TRANSIENT VOLTAGE SUPPRESSOR  
200 WATTS, 5.0 THRU 170 VOLTS

ELECTRICAL CHARACTERISTICS: Continued

PART NO.	Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Marking Code
	$V_{RWM}$	$V_{BR} @ I_T$		$I_T$	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	$I_{PP}$	
	(V)	MIN (V)	MAX (V)	(mA)	( $\mu$ A)	(V)	A	
CMF20A	20	22.2	24.5	1.0	1.0	32.4	6.2	CM20A
CMF22A	22	24.4	26.9	1.0	1.0	35.5	5.6	CM22A
CMF24A	24	26.7	29.5	1.0	1.0	38.9	5.1	CM24A
CMF26A	26	28.9	31.9	1.0	1.0	42.1	4.8	CM26A
CMF28A	28	31.1	34.4	1.0	1.0	45.4	4.4	CM28A
CMF30A	30	33.3	36.8	1.0	1.0	48.4	4.1	CM30A
CMF33A	33	36.7	40.6	1.0	1.0	53.3	3.8	CM33A
CMF36A	36	40	44.2	1.0	1.0	58.1	3.4	CM36A
*CMF40A	40	44.4	49.1	1.0	1.0	64.5	3.1	CM40A
*CMF43A	43	47.8	52.8	1.0	1.0	69.4	2.9	CM43A
*CMF45A	45	50	55.3	1.0	1.0	72.7	2.8	CM45A
*CMF48A	48	53.3	58.9	1.0	1.0	77.4	2.6	CM48A
*CMF51A	51	56.7	62.7	1.0	1.0	82.4	2.4	CM51A
*CMF54A	54	60	66.3	1.0	1.0	87.1	2.3	CM54A
*CMF58A	58	64.4	71.2	1.0	1.0	93.6	2.1	CM58A
*CMF60A	60	66.7	73.7	1.0	1.0	96.8	1.8	CM60A
*CMF64A	64	71.1	78.6	1.0	1.0	103	1.7	CM64A
*CMF70A	70	77.8	86	1.0	1.0	113	1.5	CM70A
*CMF75A	75	83.3	92.1	1.0	1.0	121	1.4	CM75A
*CMF78A	78	86.7	95.8	1.0	1.0	126	1.4	CM78A
*CMF85A	85	94.4	104	1.0	1.0	137	1.3	CM85A
*CMF90A	90	100	111	1.0	1.0	146	1.2	CM90A
*CMF100A	100	111	123	1.0	1.0	162	1.1	CM100
*CMF110A	110	122	135	1.0	1.0	177	1.0	CM110
*CMF120A	120	133	147	1.0	1.0	193	0.9	CM120
*CMF130A	130	144	159	1.0	1.0	209	0.8	CM130
*CMF150A	150	167	185	1.0	1.0	243	0.7	CM150
*CMF160A	160	178	197	1.0	1.0	259	0.7	CM160
*CMF170A	170	189	209	1.0	1.0	275	0.6	CM170

\* Under development - please consult factory

SOD-123F CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.043	0.88	1.08
B	0.020	0.031	0.50	0.80
C	0.004	0.008	0.10	0.20
D	0.065	0.077	1.65	1.95
E	0.104	0.116	2.65	2.95
F	0.140	0.156	3.55	3.95
G	0.030	0.041	0.75	1.05

SOD-123F (REV:R1)

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