
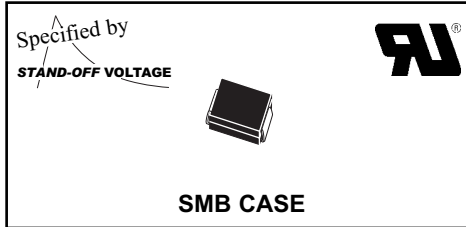


1SMB5.0A  
THRU  
1SMB170A



UNI-DIRECTIONAL  
GLASS PASSIVATED JUNCTION  
TRANSIENT VOLTAGE SUPPRESSOR  
600 WATTS, 5.0 THRU 170 VOLTS



• This series is UL listed, UL file number E130224

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)  
Peak Power Dissipation (Note 1)  
Peak Forward Surge Current (JEDEC Method)  
Operating and Storage Junction Temperature

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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1SMB5.0A Series types are Surface Mount Uni-Directional Glass Passivated Junction Transient Voltage Suppressors designed to protect voltage sensitive components from high voltage transients. **THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.**

Note: For Bi-directional devices, please refer to the 1SMB5.0CA Series data sheet.

**MARKING CODE: SEE MARKING CODE ON ELECTRICAL CHARACTERISTICS TABLE**

SYMBOL		UNITS
$P_{DM}$	600	W
$I_{FSM}$	100	A
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

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

TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ $V_{RWM}$	MAXIMUM CLAMPING VOLTAGE @ $I_{PPM}$	MAXIMUM PEAK PULSE CURRENT (Note 1)	MARKING CODE
		$V_{BR}$		@ $I_T$				
		V						
		$V_{RWM}$	MIN	MAX				
V				$\mu\text{A}$	V	A		
1SMB5.0A	5.0	6.40	7.25	10.0	800	9.2	65.2	CKE
1SMB6.0A	6.0	6.67	7.67	10.0	800	10.3	58.3	CKG
1SMB6.5A	6.5	7.22	8.30	10.0	500	11.2	53.6	CKK
1SMB7.0A	7.0	7.78	8.95	10.0	200	12.0	50.0	CKM
1SMB7.5A	7.5	8.33	9.58	1.0	100	12.9	46.5	CKP
1SMB8.0A	8.0	8.89	10.23	1.0	50	13.6	44.1	CKR
1SMB8.5A	8.5	9.44	10.82	1.0	10	14.4	41.7	CKT
1SMB9.0A	9.0	10.0	11.5	1.0	5.0	15.4	39.0	CKV
1SMB10A	10	11.1	12.8	1.0	5.0	17.0	35.3	CKX
1SMB11A	11	12.2	14.0	1.0	5.0	18.2	33.0	CKZ
1SMB12A	12	13.3	15.3	1.0	5.0	19.9	30.2	CLE
1SMB13A	13	14.4	16.5	1.0	5.0	21.5	27.9	CLG
1SMB14A	14	15.6	17.9	1.0	5.0	23.2	25.8	CLK
1SMB15A	15	16.7	19.2	1.0	5.0	24.4	24.0	CLM
1SMB16A	16	17.8	20.5	1.0	5.0	26.0	23.1	CLP
1SMB17A	17	18.9	21.7	1.0	5.0	27.6	21.7	CLR
1SMB18A	18	20.0	23.3	1.0	5.0	29.2	20.5	CLT
1SMB20A	20	22.2	25.5	1.0	5.0	32.4	18.5	CLV
1SMB22A	22	24.4	28.0	1.0	5.0	35.5	16.9	CLX
1SMB24A	24	26.7	30.7	1.0	5.0	38.9	15.4	CLZ
1SMB26A	26	28.9	33.2	1.0	5.0	42.1	14.2	CME
1SMB28A	28	31.1	35.8	1.0	5.0	45.4	13.2	CMG
1SMB30A	30	33.3	38.3	1.0	5.0	48.4	12.4	CMK

Notes: (1) Non-repetitive 10x1,000 $\mu\text{s}$  pulse.

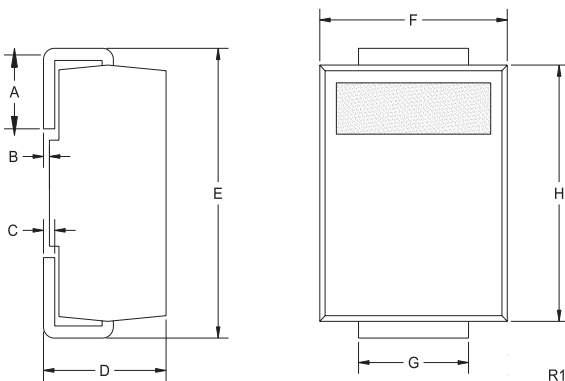
R2 (3-March 2008)

UNI-DIRECTIONAL  
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ELECTRICAL CHARACTERISTICS - Continued:

TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ $V_{RWM}$	MAXIMUM CLAMPING VOLTAGE @ $I_{PPM}$	MAXIMUM PEAK PULSE CURRENT (Note 1)	MARKING CODE
		$V_{BR}$		@ $I_T$				
	$V_{RWM}$	V			$I_R$	$V_C$	$I_{PPM}$	
	V	MIN	MAX	mA	$\mu A$	V	A	
1SMB33A	33	36.7	42.2	1.0	5.0	53.3	11.3	CMM
1SMB36A	36	40.0	46.0	1.0	5.0	58.1	10.3	CMP
1SMB40A	40	44.4	51.1	1.0	5.0	64.5	9.3	CMR
1SMB43A	43	47.8	54.9	1.0	5.0	69.4	8.6	CMT
1SMB45A	45	50.0	57.5	1.0	5.0	72.7	8.3	CMV
1SMB48A	48	53.3	61.3	1.0	5.0	77.4	7.7	CMX
1SMB51A	51	56.7	65.2	1.0	5.0	82.4	7.3	CMZ
1SMB54A	54	60.0	69.0	1.0	5.0	87.1	6.9	CNE
1SMB58A	58	64.4	74.1	1.0	5.0	93.6	6.4	CNG
1SMB60A	60	66.7	76.7	1.0	5.0	96.8	6.2	CNK
1SMB64A	64	71.1	81.8	1.0	5.0	103	5.8	CNM
1SMB70A	70	77.8	89.5	1.0	5.0	113	5.3	CNP
1SMB75A	75	83.3	95.8	1.0	5.0	121	4.9	CNR
1SMB78A	78	86.7	99.7	1.0	5.0	126	4.7	CNT
1SMB85A	85	94.4	108.2	1.0	5.0	137	4.4	CNV
1SMB90A	90	100.0	115.5	1.0	5.0	146	4.1	CNX
1SMB110A	100	111.0	128.0	1.0	5.0	162	3.7	CNZ
1SMB110A	110	122.0	140.5	1.0	5.0	177	3.4	CPE
1SMB120A	120	133.0	153.0	1.0	5.0	193	3.1	CPG
1SMB130A	130	144.0	165.5	1.0	5.0	209	2.9	CPK
1SMB150A	150	167.0	192.5	1.0	5.0	243	2.5	CPM
1SMB160A	160	178.0	205.0	1.0	5.0	259	2.3	CPP
1SMB170A	170	189.0	217.5	1.0	5.0	275	2.2	CPR

SMB CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.086	0.096	2.18	2.44
E	0.200	0.220	5.08	5.59
F	0.130	0.150	3.30	3.81
G	0.077	0.083	1.96	2.11
H	0.160	0.180	4.06	4.57

SMB (REV: R1)

R2 (3-March 2008)