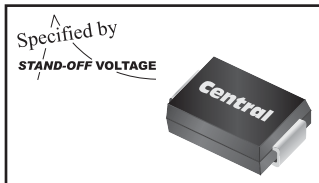
1SMB5.0A
THRU
1SMB170A

SURFACE MOUNT SILICON
UNI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSORS
600 WATT, 5.0 THRU 170 VOLT



SMB CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1SMB5.0A series devices 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 ELECTRICAL CHARACTERISTICS TABLE

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)	**SYMBOL**		**UNITS**
Peak Power Dissipation (Note 1)	P_{DM}	600	W
Peak Forward Surge Current (JEDEC Method)	I_{FSM}	100	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

TYPE	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE V_{BR} @ I_T		TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT @ V_{RWM}	MAXIMUM CLAMPING VOLTAGE @ I_{PP}	PEAK PULSE CURRENT (Note 1)	MARKING CODE
	V_{RWM} (V)	MIN (V)	MAX (V)	I_T (mA)	I_R (µA)	V_C (V)	I_{PP} (A)	
1SMB5.0A	5.0	6.40	7.25	10	800	9.2	65.2	CKE
1SMB6.0A	6.0	6.67	7.67	10	800	10.3	58.3	CKG
1SMB6.5A	6.5	7.22	8.30	10	500	11.2	53.6	CKK
1SMB7.0A	7.0	7.78	8.95	10	200	12	50	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	11.5	1.0	5.0	15.4	39	CKV
1SMB10A	10	11.1	12.8	1.0	5.0	17	35.3	CKX
1SMB11A	11	12.2	14	1.0	5.0	18.2	33	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	CLM
1SMB16A	16	17.8	20.5	1.0	5.0	26	23.1	CLP
1SMB17A	17	18.9	21.7	1.0	5.0	27.6	21.7	CLR
1SMB18A	18	20	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	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

Note 1: Non-repetitive 10x1,000µs pulse.

R6 (11-September 2018)

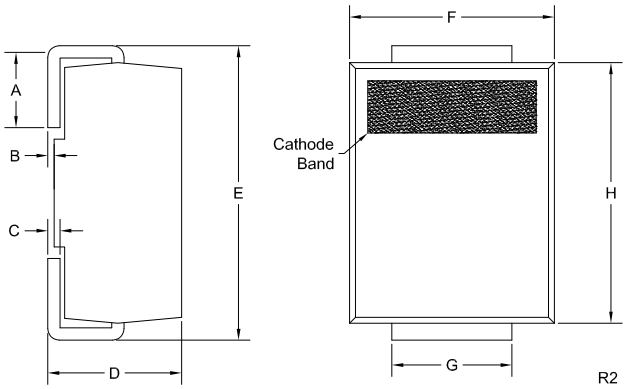
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ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C unless otherwise noted)

TYPE	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE V_{BR} @ I_T		TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT @ V_{RWM}	MAXIMUM CLAMPING VOLTAGE @ I_{PP}	PEAK PULSE CURRENT (Note 1)	MARKING CODE
	V_{RWM} (V)	MIN (V)	MAX (V)	I_T (mA)	I_R (μA)	V_C (V)	I_{PP} (A)	
1SMB33A	33	36.7	42.2	1.0	5.0	53.3	11.3	CMM
1SMB36A	36	40	46	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	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	69	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	115.5	1.0	5.0	146	4.1	CNX
1SMB100A	100	111	128	1.0	5.0	162	3.7	CNZ
1SMB110A	110	122	140.5	1.0	5.0	177	3.4	CPE
1SMB120A	120	133	153	1.0	5.0	193	3.1	CPG
1SMB130A	130	144	165.5	1.0	5.0	209	2.9	CPK
1SMB150A	150	167	192.5	1.0	5.0	243	2.5	CPM
1SMB160A	160	178	205	1.0	5.0	259	2.3	CPP
1SMB170A	170	189	217.5	1.0	5.0	275	2.2	CPR

SMB CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.000	0.008	0.00	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	0.191	4.06	4.85

SMB (REV: R2)

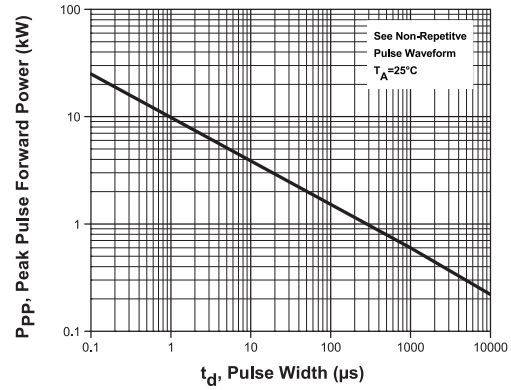
R6 (11-September 2018)

1SMB5.0A
THRU
1SMB170A

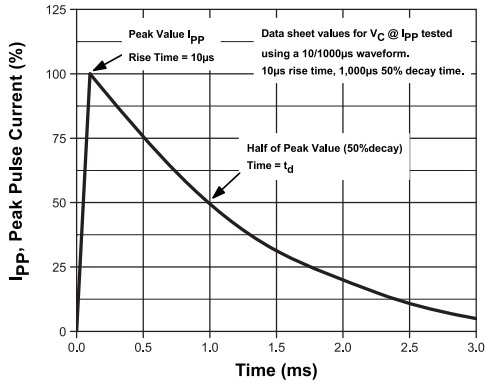
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TYPICAL ELECTRICAL CHARACTERISTICS

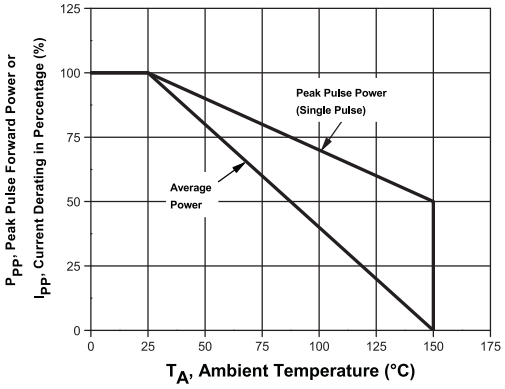
Peak Pulse Forward Power



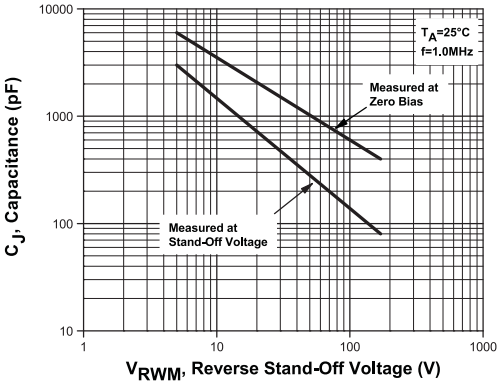
Non-Repetitive Pulse Waveform



Power & Current Derating



Typical Capacitance



OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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