

Features

- Glass Passivated Junction
- Excellent Clamping Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

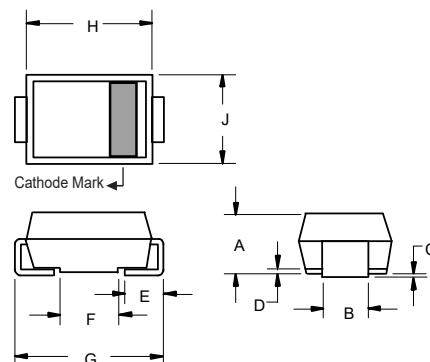
Parameter	Symbol	Rating	Conditions
Peak Forward Surge Current	I_{FSM}	15A	Note 2
Power Dissipation	P_D	2.0W	Note 3
Power Derating		24mW/°C	Above 75°C
Maximum Forward Voltage	V_F	1.5V	$I_F=200mA$

Note:1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

2. Measured on 8.3ms, Single Half Sine-wave or Equivalent Square Wave, Duty Cycle = 4 Pulses Per Minute Maximum.

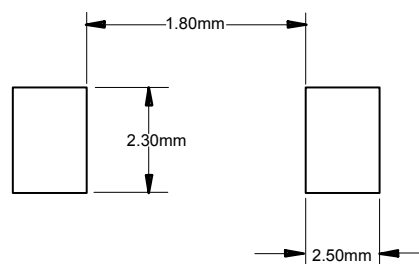
3. Mounted on 5.0mm² (0.013mm thick) land areas.

SMB (DO-214AA) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number (Note 4)	Nominal Zener Voltage (Note 5)	Test current	Maximum Zener Impedance (Note 6)			Leakage Current		Maximum Zener Current	Surge Current @T _A =25°C	Marking Code
	V _Z @I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R	V _R	I _{ZM}	I _{ZSM}	
	V	mA	Ω	Ω	mA	μA(Max.)	V	mA	A	
SMB2EZ5.1D5	5.1	98.0	3.5	600	1	5	1	356	3.5	2E5.1/2C5V1
SMB2EZ5.6D5	5.6	89.5	2.5	500	1	5	2	324	3.3	2E5.6/2C5V6
SMB2EZ6.2D5	6.2	80.5	1.5	700	1	5	3	292	3.1	2E6.2/2C6V2
SMB2EZ6.8D5	6.8	73.5	2	700	1	5	4	266	2.9	2E6.8/2C6V8
SMB2EZ7.5D5	7.5	66.5	2	700	0.5	5	5	242	2.66	2E7.5/2C7V5
SMB2EZ8.2D5	8.2	61	2.3	700	0.5	5	6	220	2.44	2E8.2/2C8V2
SMB2EZ9.1D5	9.1	55	2.5	700	0.5	3	7	200	2.2	2E9.1/2C9V1
SMB2EZ10D5	10	50	3.5	700	0.25	3	7.6	182	2.0	2E10/2C10
SMB2EZ11D5	11	45.5	4	700	0.25	1	8.4	166	1.82	2E11/2C11
SMB2EZ12D5	12	41.5	4.5	700	0.25	1	9.1	152	1.66	2E12/2C12
SMB2EZ13D5	13	38.5	5	700	0.25	0.5	9.9	138	1.54	2E13/2C13
SMB2EZ14D5	14	35.7	5.5	700	0.25	0.5	10.6	130	1.43	2E14/2C14
SMB2EZ15D5	15	33.4	7	700	0.25	0.5	11.4	122	1.33	2E15/2C15
SMB2EZ16D5	16	31.2	8	700	0.25	0.5	12.2	114	1.25	2E16/2C16
SMB2EZ17D5	17	29.4	9	750	0.25	0.5	13	107	1.18	2E17/2C17
SMB2EZ18D5	18	27.8	10	750	0.25	0.5	13.7	100	1.11	2E18/2C18
SMB2EZ19D5	19	26.3	11	750	0.25	0.5	14.4	95	1.05	2E19/2C19
SMB2EZ20D5	20	25	11	750	0.25	0.5	15.2	90	1	2E20/2C20
SMB2EZ22D5	22	22.8	12	750	0.25	0.5	16.7	82	0.91	2E22/2C22
SMB2EZ24D5	24	20.8	13	750	0.25	0.5	18.2	76	0.83	2E24/2C24
SMB2EZ27D5	27	18.5	18	750	0.25	0.5	20.6	68	0.74	2E27/2C27
SMB2EZ30D5	30	16.6	20	1000	0.25	0.5	22.5	60	0.67	2E30/2C30
SMB2EZ33D5	33	15.1	23	1000	0.25	0.5	25.1	55	0.61	2E33/2C33
SMB2EZ36D5	36	13.9	25	1000	0.25	0.5	27.4	50	0.56	2E36/2C36
SMB2EZ39D5	39	12.8	30	1000	0.25	0.5	29.7	47	0.51	2E39/2C39
SMB2EZ43D5	43	11.6	35	1500	0.25	0.5	32.7	43	0.45	2E43/2C43
SMB2EZ47D5	47	10.6	40	1500	0.25	0.5	35.8	39	0.42	2E47/2C47
SMB2EZ51D5	51	9.8	48	1500	0.25	0.5	38.8	36	0.39	2E51/2C51
SMB2EZ56D5	56	9	55	2000	0.25	0.5	42.6	32	0.36	2E56/2C56
SMB2EZ62D5	62	8.1	60	2000	0.25	0.5	47.1	29	0.32	2E62/2C62
SMB2EZ68D5	68	7.4	75	2000	0.25	0.5	51.7	27	0.29	2E68/2C68
SMB2EZ75D5	75	6.7	90	2000	0.25	0.5	56	24	0.27	2E75/2C75

Notes:

4. TOLERANCES - Suffix Indicates 5% Tolerance Any Other Tolerance Will be Considered as a Special Device.
5. ZENER VOLTAGE (V_Z) MEASUREMENT - - Guarantees The Zener Voltage When Measured at 40 ms from The Diode Body, and an Ambient Temperature of 25 °C
6. ZENER IMPEDANCE (Z_Z) DERIVATION - The Zener Impedance is Derived from The 60 Cycle AC Voltage, Which Results When an AC Current Having an rms Value Equal to 10% of the DC Zener Current (I_{ZT} or I_{ZK}) is Superimposed on (I_{ZT} or I_{ZK}).

Curve Characteristics

Fig. 1 - Power Derating Curve

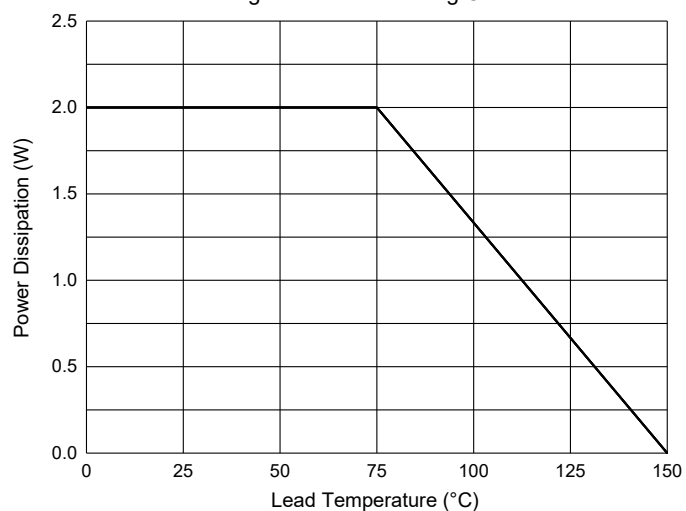


Fig. 2 - Typical Zener Breakdown Characteristics

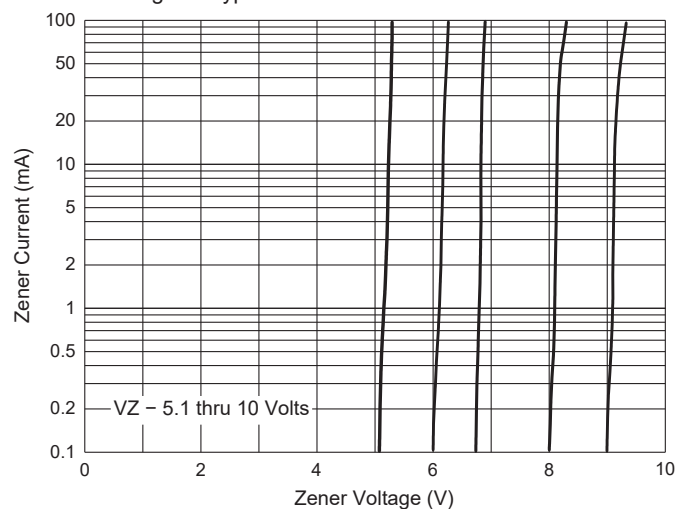
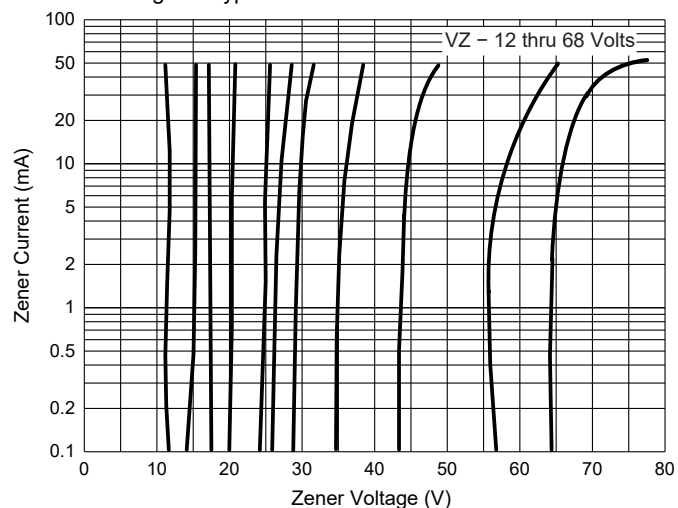


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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<u>SMB2EZ16D5-TP</u>	<u>SMB2EZ9.1D5-TP</u>	<u>SMB2EZ6.8D5-TP</u>	<u>SMB2EZ62D5-TP</u>	<u>SMB2EZ68D5-TP</u>	<u>SMB2EZ7.5D5-TP</u>
<u>SMB2EZ75D5-TP</u>	<u>SMB2EZ8.2D5-TP</u>	<u>SMB2EZ47D5-TP</u>	<u>SMB2EZ5.1D5-TP</u>	<u>SMB2EZ5.6D5-TP</u>	<u>SMB2EZ51D5-TP</u>
<u>SMB2EZ56D5-TP</u>	<u>SMB2EZ6.2D5-TP</u>	<u>SMB2EZ27D5-TP</u>	<u>SMB2EZ30D5-TP</u>	<u>SMB2EZ33D5-TP</u>	<u>SMB2EZ36D5-TP</u>
<u>SMB2EZ39D5-TP</u>	<u>SMB2EZ43D5-TP</u>	<u>SMB2EZ17D5-TP</u>	<u>SMB2EZ18D5-TP</u>	<u>SMB2EZ19D5-TP</u>	<u>SMB2EZ20D5-TP</u>
<u>SMB2EZ22D5-TP</u>	<u>SMB2EZ24D5-TP</u>				