



SMB3788B THRU SMB3809B

Surface Mount Zener Diode

Features

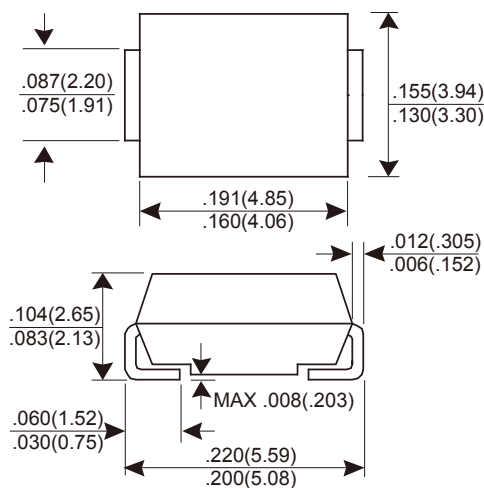
- ★ Ideally suited for automated assembly processes
- ★ Low leakage
- ★ Built-in strain relief
- ★ Low inductance
- ★ High peak reverse power dissipation
- ★ Zener voltage tolerance is $\pm 5\%$

Mechanical Data

- ★ Case: Molded plastic, SMB/DO-214AA
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 9.1 to 68 V
Power Dissipation 1.5 Watts

SMB/DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$ unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
DC power dissipation at $T_L=75^\circ\text{C}$	P_D	1.5	W
Maximum forward voltage at $I_F=200\text{mA}$	V_F	1.5	V
Junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

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Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise noted)

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$				Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$		Maximum DC Zener Current
		Min (V)	Nom (V)	Max (V)	I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ (Ω)	$Z_{ZK}@I_{ZK}$ (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)	I_{ZM} (mA)
SMB3788B	788B	8.65	9.1	9.56	41.2	4	500	0.5	2.5	7	164
SMB3789B	789B	9.5	10	10.5	37.5	4.5	500	0.25	2.5	8	150
SMB3790B	790B	10.5	11	11.6	34.1	5.5	550	0.25	0.5	8.4	136
SMB3791B	791B	11.4	12	12.6	31.2	6.5	550	0.25	0.5	9.1	125
SMB3792B	792B	12.4	13	13.7	28.8	7	550	0.25	0.5	9.9	115
SMB3793B	793B	14.3	15	15.8	25	9	600	0.25	0.5	11.4	100
SMB3794B	794B	15.2	16	16.8	23.4	10	600	0.25	0.5	12.2	93
SMB3795B	795B	17.1	18	18.9	20.8	12	650	0.25	0.5	13.7	83
SMB3796B	796B	19	20	21	18.7	14	650	0.25	0.5	15.2	75
SMB3797B	797B	20.9	22	23.1	17	17.5	650	0.25	0.5	16.7	68
SMB3798B	798B	22.8	24	25.2	15.6	19	700	0.25	0.5	18.2	62
SMB3799B	799B	25.7	27	28.4	13.9	23	700	0.25	0.5	20.6	55
SMB3800B	800B	28.5	30	31.5	12.5	26	750	0.25	0.5	22.8	50
SMB3801B	801B	31.4	33	34.7	11.4	33	800	0.25	0.5	25.1	45
SMB3802B	802B	34.2	36	37.8	10.4	38	850	0.25	0.5	27.4	41
SMB3803B	803B	37.1	39	41	9.6	45	900	0.25	0.5	29.7	38
SMB3804B	804B	40.9	43	45.2	8.7	53	950	0.25	0.5	32.7	34
SMB3805B	805B	44.7	47	49.4	8	67	1000	0.25	0.5	35.8	31
SMB3806B	806B	48.5	51	53.6	7.3	70	1100	0.25	0.5	38.8	29
SMB3807B	807B	53.2	56	58.8	6.7	86	1300	0.25	0.5	42.6	26
SMB3808B	808B	58.9	62	65.1	6	100	1500	0.25	0.5	47.1	24
SMB3809B	809B	64.6	68	71.4	5.5	120	1700	0.25	0.5	51.7	22

The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC method

RATINGS AND CHARACTERISTIC CURVES SMB3788B THRU SMB3809B

Fig.1 - Power Derating Curve

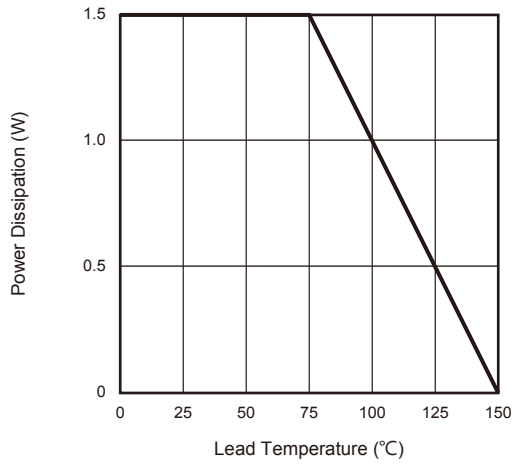


Fig.2 - Temperature Coefficients

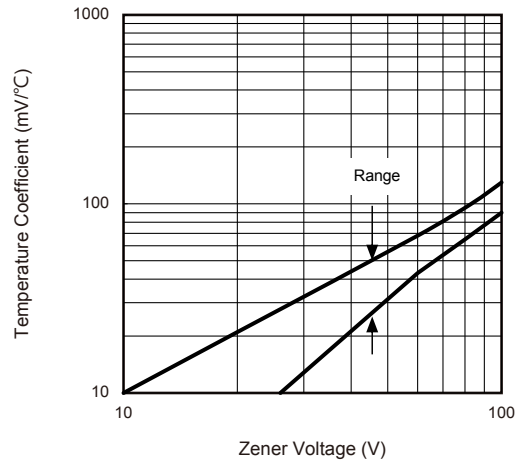


Fig.3 - Pulse Waveform

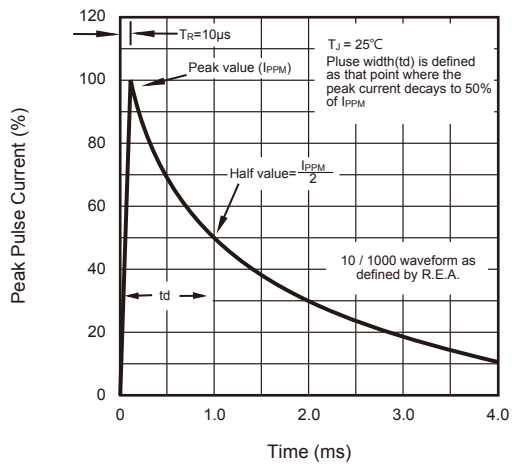


Fig.4 - Maximum Surge Power

