



SMB5333B THRU SMB5388B

Surface Mount Zener Diode

Features

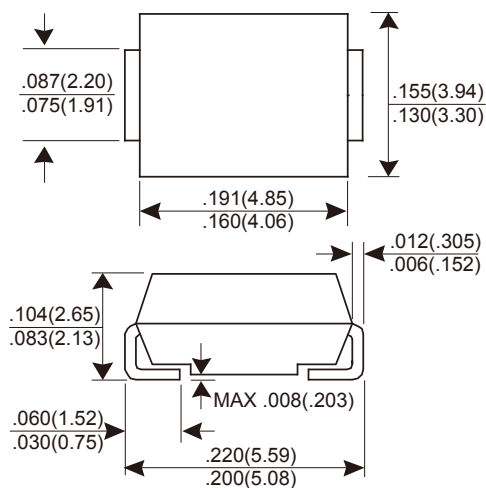
- ★ Ideally suited for automated assembly processes
- ★ Low leakage
- ★ Built-in strain relief
- ★ Low inductance
- ★ High peak reverse power dissipation
- ★ Zener voltage tolerance is $\pm 5\%$

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 3.3 to 200 V
Power Dissipation 5.0 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	5	W
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 I_{ZM}
		Min (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)	
SMB5333B	333B	3.13	3.47	380	3.0	400	1.0	300	1.0	1440
SMB5334B	334B	3.42	3.78	350	2.5	500	1.0	150	1.0	1320
SMB5335B	335B	3.70	4.10	320	2.0	500	1.0	50	1.0	1220
SMB5336B	336B	4.08	4.52	290	2.0	500	1.0	10	1.0	1100
SMB5337B	337B	4.46	4.94	260	2.0	450	1.0	5.0	1.0	1010
SMB5338B	338B	4.84	5.36	240	1.5	400	1.0	1.0	1.0	930
SMB5339B	339B	5.32	5.88	220	1.0	400	1.0	1.0	2.0	865
SMB5340B	340B	5.70	6.30	200	1.0	300	1.0	1.0	3.0	790
SMB5341B	341B	5.89	6.51	200	1.0	200	1.0	1.0	3.0	765
SMB5342B	342B	6.46	7.14	175	1.0	200	1.0	10	5.2	700
SMB5343B	343B	7.12	7.88	175	1.5	200	1.0	10	5.7	630
SMB5344B	344B	7.79	8.61	150	1.5	200	1.0	10	6.2	580
SMB5345B	345B	8.27	9.13	150	2.0	200	1.0	10	6.6	545
SMB5346B	346B	8.64	9.56	150	2.0	150	1.0	7.5	6.9	520
SMB5347B	347B	9.50	10.50	125	2.0	125	1.0	5.0	7.6	475
SMB5348B	348B	10.45	11.55	125	2.5	125	1.0	5.0	8.4	430
SMB5349B	349B	11.40	12.60	100	2.5	125	1.0	2.0	9.1	395
SMB5350B	350B	12.35	13.65	100	2.5	100	1.0	1.0	9.9	365
SMB5351B	351B	13.30	14.70	100	2.5	75	1.0	1.0	10.6	340
SMB5352B	352B	14.25	15.75	75	2.5	75	1.0	1.0	11.5	315
SMB5353B	353B	15.20	16.80	75	2.5	75	1.0	1.0	12.2	295
SMB5354B	354B	16.15	17.85	70	2.5	75	1.0	0.5	12.9	280
SMB5355B	355B	17.10	18.90	65	2.5	75	1.0	0.5	13.7	264
SMB5356B	356B	18.05	19.95	65	3.0	75	1.0	0.5	14.4	250
SMB5357B	357B	19.00	21.00	65	3.0	75	1.0	0.5	15.2	237
SMB5358B	358B	20.90	23.10	50	3.5	75	1.0	0.5	16.7	216
SMB5359B	359B	22.80	25.20	50	3.5	100	1.0	0.5	18.2	198
SMB5360B	360B	23.70	26.30	50	4.0	110	1.0	0.5	19.0	190
SMB5361B	361B	25.60	28.40	50	5.0	120	1.0	0.5	20.6	176
SMB5362B	362B	26.60	29.40	50	6.0	130	1.0	0.5	21.2	170
SMB5363B	363B	28.50	31.50	40	8.0	140	1.0	0.5	22.8	158
SMB5364B	364B	31.30	34.70	40	10	150	1.0	0.5	25.1	144
SMB5365B	365B	34.20	37.80	30	11	160	1.0	0.5	27.4	132
SMB5366B	366B	37.00	41.00	30	14	170	1.0	0.5	29.7	122
SMB5367B	367B	40.80	45.20	30	20	190	1.0	0.5	32.7	110
SMB5368B	368B	44.60	49.40	25	25	210	1.0	0.5	35.8	100
SMB5369B	369B	48.40	53.60	25	27	230	1.0	0.5	38.8	93.0
SMB5370B	370B	53.20	58.80	20	35	280	1.0	0.5	42.6	86.0
SMB5371B	371B	57.00	63.00	20	40	350	1.0	0.5	45.5	79.0
SMB5372B	372B	58.90	65.10	20	42	400	1.0	0.5	47.1	76.0
SMB5373B	373B	64.60	71.40	20	44	500	1.0	0.5	51.7	70.0
SMB5374B	374B	71.20	78.80	20	45	620	1.0	0.5	56.0	63.0
SMB5375B	375B	77.90	86.10	15	65	720	1.0	0.5	62.2	58.0
SMB5376B	376B	82.60	91.40	15	75	760	1.0	0.5	66.0	54.5
SMB5377B	377B	86.40	95.60	15	75	760	1.0	0.5	69.2	52.5
SMB5378B	378B	95.00	105.0	12	90	800	1.0	0.5	76.0	47.5
SMB5379B	379B	104.5	115.5	12	125	1000	1.0	0.5	83.6	43.0
SMB5380B	380B	114.0	126.0	10	170	1150	1.0	0.5	91.2	39.5
SMB5381B	381B	123.5	136.5	10	190	1250	1.0	0.5	98.8	36.6
SMB5382B	382B	133.0	147.0	8	230	1500	1.0	0.5	106.0	34.0
SMB5383B	383B	142.5	157.5	8	330	1500	1.0	0.5	114.0	31.6
SMB5384B	384B	152.0	168.0	8	350	1650	1.0	0.5	122.0	29.4
SMB5385B	385B	161.5	178.5	8	380	1750	1.0	0.5	129.0	28.0
SMB5386B	386B	171.0	189.0	5	430	1750	1.0	0.5	137.0	26.4
SMB5387B	387B	180.5	199.5	5	450	1850	1.0	0.5	144.0	25.0
SMB5388B	388B	190.0	210.0	5	480	1850	1.0	0.5	152.0	23.6

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 CHARACTERISTICS CURVES SMB5333B THRU SMB5388B

Fig.1 - Power Derating Curve

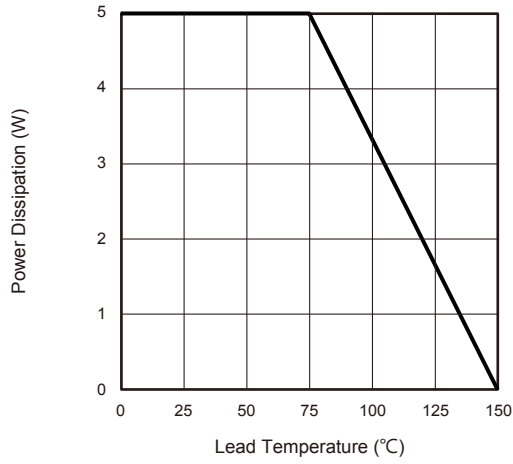


Fig.2 - Typical Instantaneous Forward Characteristics

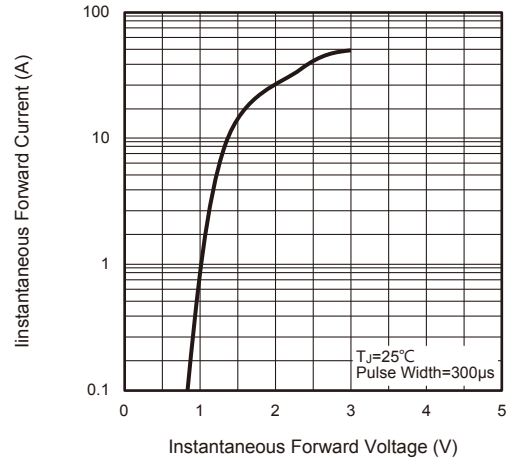


Fig.3 - Typical Temperature Coefficients

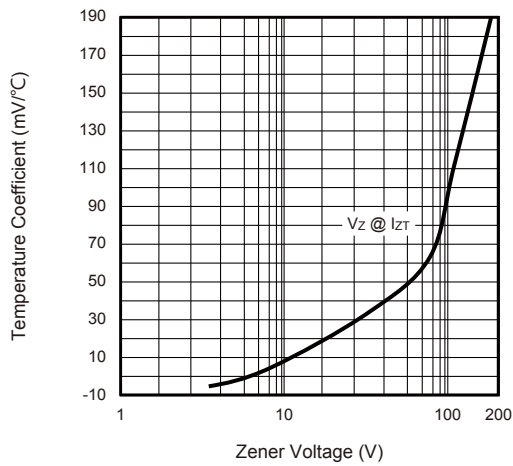


Fig.4 - Zener Breakdown Characteristics

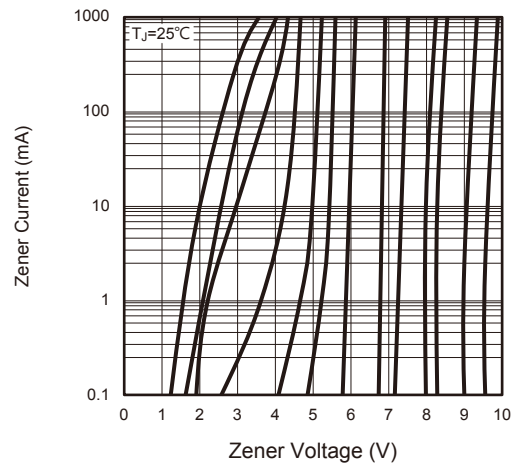


Fig.5 - Zener Breakdown Characteristics

