

Surface Mount Silicon Zener Diodes Zener Voltage 3.3 ~ 200 V

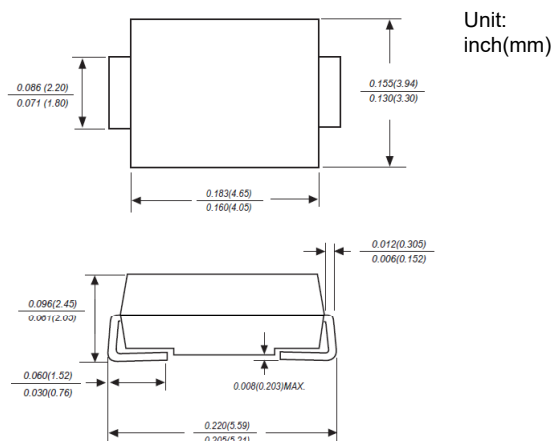
5.0 Watt Power Dissipation

Features

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- RoHS compliant

Mechanical Data

- Case: DO214AA Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting position: Any



DO214AA
(SMB)

Parameter	Symbols	Value	Unit
DC Power dissipation at $T_L = 75^\circ\text{C}^{(1)}$	P_D	5.0	W
Maximum forward voltage at $I_F=200\text{mA}$	V_F	1.2	V
Junction temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note :

(1) T_L =Lead temperature at 3/8" (9.5mm)from body

Part Number	Device Marking Code	Nominal Zener Voltage @I _T			I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
		V _{Z AVE.} (V)	V _{Z MIN.} (V)	V _{Z MAX.} (V)		Z _{ZT MAX.} (Ω) @I _{ZT}	Z _{ZK MAX.} (Ω) @I _{ZK}	I _{ZK} (mA)	I _R (μA) @V _R	V _R (V)	
1SMB5333B	333B	3.3	3.14	3.47	380	3.0	400	1.00	300	1.0	1437.0
1SMB5334B	334B	3.6	3.42	3.78	350.0	2.5	500	1.00	150	1.0	1317.0
1SMB5335B	335B	3.9	3.71	4.10	320.0	2.0	500	1.00	50	1.0	1216.0
1SMB5336B	336B	4.3	4.09	4.52	290.0	2.0	500	1.00	10	1.0	1103.0
1SMB5337B	337B	4.7	4.47	4.94	260.0	2.0	450	1.00	5	1.0	1009.0
1SMB5338B	338B	5.1	4.85	5.36	240.0	1.5	400	1.00	1.0	1.0	930.0
1SMB5339B	339B	5.6	5.32	5.88	220.0	1.0	400	1.00	1.0	2.0	846.0
1SMB5340B	340B	6.0	5.70	6.30	200.0	1.0	300	1.00	1.0	3.0	790.0
1SMB5341B	341B	6.2	5.89	6.51	200.0	1.0	200	1.00	1.0	3.0	765.0
1SMB5342B	342B	6.8	6.46	7.14	175.0	1.0	200	1.00	10.0	5.2	700.0
1SMB5343B	343B	7.5	7.13	7.88	175.0	1.5	200	1.00	10.0	5.7	630.0
1SMB5344B	344B	8.2	7.79	8.61	150.0	1.5	200	1.00	10.0	6.2	580.0
1SMB5345B	345B	8.7	8.27	9.14	150.0	2.0	200	1.00	10.0	6.6	545.0
1SMB5346B	346B	9.1	8.65	9.56	150.0	2.0	150	1.00	7.5	6.9	520.0
1SMB5347B	347B	10.0	9.50	10.50	125.0	2.0	125	1.00	5	7.6	475.0
1SMB5348B	348B	11.0	10.45	11.55	125.0	2.5	125	1.00	5	8.4	430.0
1SMB5349B	349B	12.0	11.40	12.60	100.0	2.5	125	1.00	2	9.1	395.0
1SMB5350B	350B	13.0	12.35	13.65	100.0	2.5	100	1.00	1	9.9	365.0
1SMB5351B	351B	14.0	13.30	14.70	100.0	2.5	75	1.00	1	10.6	340.0
1SMB5352B	352B	15.0	14.25	15.75	75.0	2.5	75	1.00	1	11.5	315.0
1SMB5353B	353B	16.0	15.20	16.80	75.0	2.5	75	1.00	1	12.2	295.0
1SMB5354B	354B	17.0	16.15	17.85	70.0	2.5	75	1.00	0.5	12.9	280.0
1SMB5355B	355B	18.0	17.10	18.90	65.0	2.5	75	1.00	0.5	13.7	265.0
1SMB5356B	356B	19.0	18.05	19.95	65.0	3.0	75	1.00	0.5	14.4	250.0
1SMB5357B	357B	20.0	19.00	21.00	65.0	3.0	75	1.00	0.5	15.2	237.0
1SMB5358B	358B	22.0	20.90	23.10	50.0	3.5	75	1.00	0.5	16.7	216.0
1SMB5359B	359B	24.0	22.80	25.20	50.0	3.5	100	1.00	0.5	18.2	198.0
1SMB5360B	360B	25.0	23.75	26.25	50.0	4.0	110	1.00	0.5	19.0	190.0
1SMB5361B	361B	27.0	25.65	28.35	50.0	5.0	120	1.00	0.5	20.6	176.0
1SMB5362B	362B	28.0	26.60	29.40	50.0	6.0	130	1.00	0.5	21.2	170.0
1SMB5363B	363B	30.0	28.50	31.50	40.0	8.0	140	1.00	0.5	22.8	158.0
1SMB5364B	364B	33.0	31.35	34.65	40.0	10.0	150	1.00	0.5	25.1	144.0
1SMB5365B	365B	36.0	34.20	37.80	30.0	11.0	160	1.00	0.5	27.4	132.0
1SMB5366B	366B	39.0	37.05	40.95	30.0	14.0	170	1.00	0.5	29.7	122.0
1SMB5367B	367B	43.0	40.85	45.15	30.0	20.0	190	1.00	0.5	32.7	110.0
1SMB5368B	368B	47.0	44.65	49.35	25.0	25.0	210	1.00	0.5	35.8	100.0
1SMB5369B	369B	51.0	48.45	53.55	25.0	27.0	230	1.00	0.5	38.8	93.0
1SMB5370B	370B	56.0	53.20	58.80	20.0	35.0	280	1.00	0.5	42.6	86.0
1SMB5371B	371B	60.0	57.00	63.00	20.0	40.0	350	1.00	0.5	42.5	79.0
1SMB5372B	372B	62.0	58.90	65.10	20.0	42.0	400	1.00	0.5	47.1	76.0
1SMB5373B	373B	68.0	64.60	71.40	20.0	44.0	500	1.00	0.5	51.7	70.0
1SMB5374B	374B	75.0	71.25	78.75	20.0	45.0	620	1.00	0.5	56.0	63.0
1SMB5375B	375B	82.0	77.90	86.10	15.0	65.0	720	1.00	0.5	62.2	58.0
1SMB5376B	376B	87.0	82.65	91.35	15.0	75.0	760	1.00	0.5	66.0	54.5
1SMB5377B	377B	91.0	86.45	95.55	15.0	75.0	760	1.00	0.5	69.2	52.5
1SMB5378B	378B	100.0	95.00	105.00	12.0	90.0	800	1.00	0.5	76.0	47.5
1SMB5379B	379B	110.0	104.50	115.50	12.0	125.0	1000	1.00	0.5	83.6	43.0
1SMB5380B	380B	120.0	114.00	126.00	10.0	170.0	1150	1.00	0.5	91.2	39.5
1SMB5381B	381B	130.0	123.50	136.50	10.0	190.0	1250	1.00	0.5	98.8	36.6
1SMB5382B	382B	140.0	133.00	147.00	8.0	230.0	1500	1.00	0.5	106.0	34.0
1SMB5383B	383B	150.0	142.50	157.50	8.0	330.0	1500	1.00	0.5	114.0	31.6
1SMB5384B	384B	160.0	152.00	168.00	8.0	350.0	1650	1.00	0.5	122.0	29.4
1SMB5385B	385B	170.0	161.50	178.50	8.0	380.0	1750	1.00	0.5	129.0	28.0
1SMB5386B	386B	180.0	171.00	189.00	5.0	430.0	1750	1.00	0.5	137.0	26.4
1SMB5387B	387B	190.0	180.50	199.50	5.0	450.0	1850	1.00	0.5	144.0	25.0
1SMB5388B	388B	200.0	190.00	210.00	5.0	480.0	1850	1.00	0.5	152.0	23.6

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

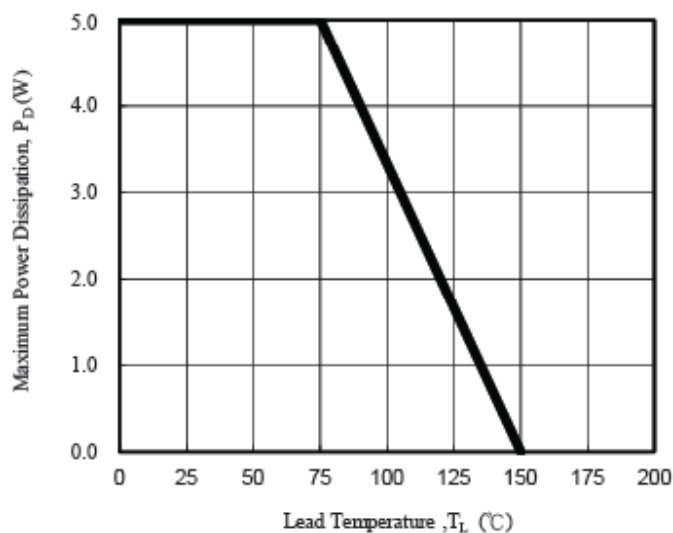


Fig. 1 - Power Temperature Derating Curve

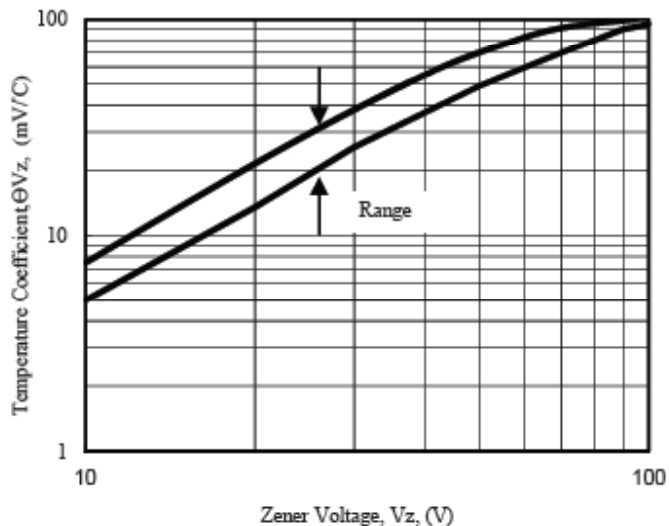


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

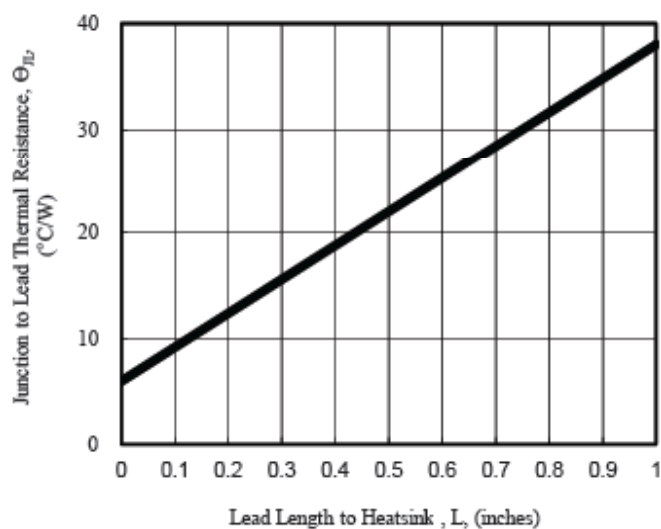


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

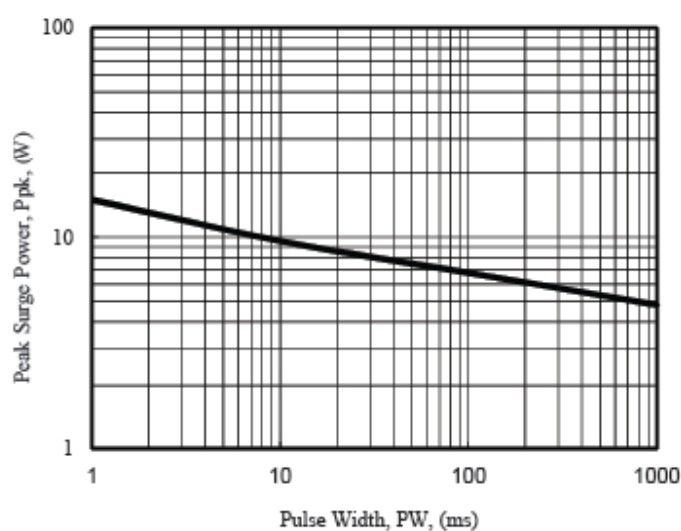


Fig. 4 - Maximum Surge Power

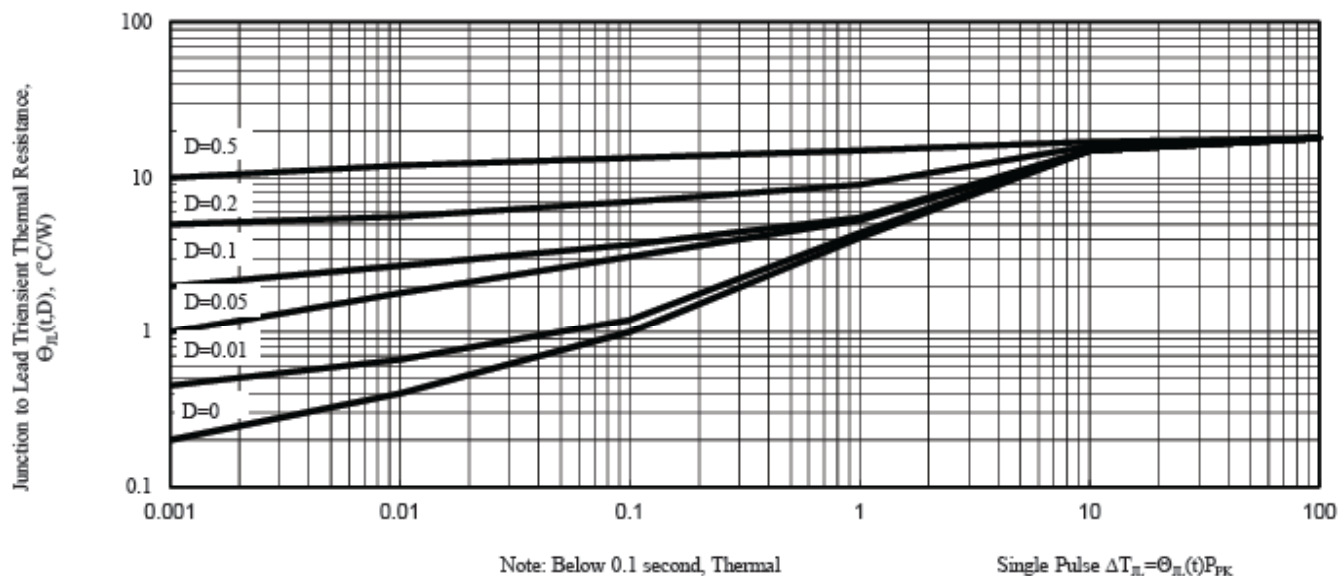


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch