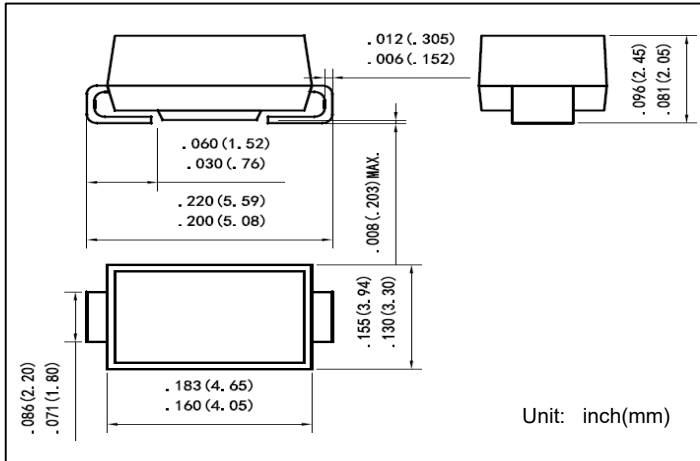


DO-214AA (SMB)



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 ra
- High temperature soldering guaranteed: 260°C/10seconds
- RoHS compliant

Mechanical Data

- Case: DO-214AA 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

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
Typical thermal resistance ⁽²⁾	$R_{\theta JA}$	65	$^\circ\text{C}/\text{W}$
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;

(2) Thermal resistance from junction to ambient and from junction to lead mounted on P.
0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.

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

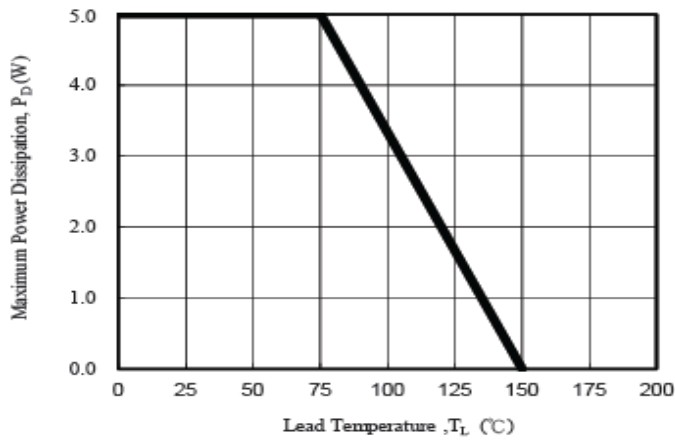


Fig. 1 - Power Temperature Derating Curve

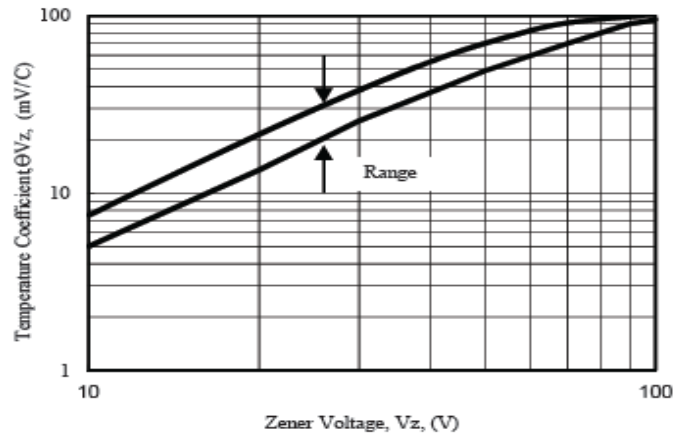


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

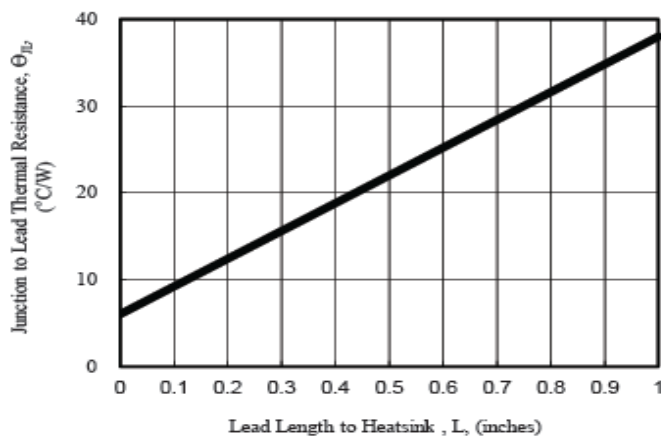


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

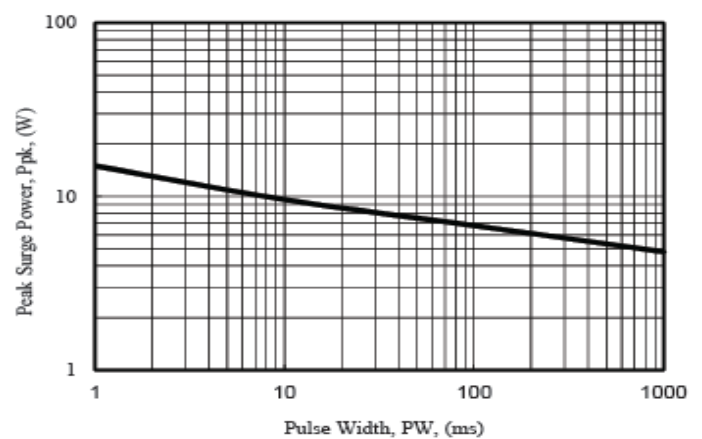


Fig. 4 - Maximum Surge Power

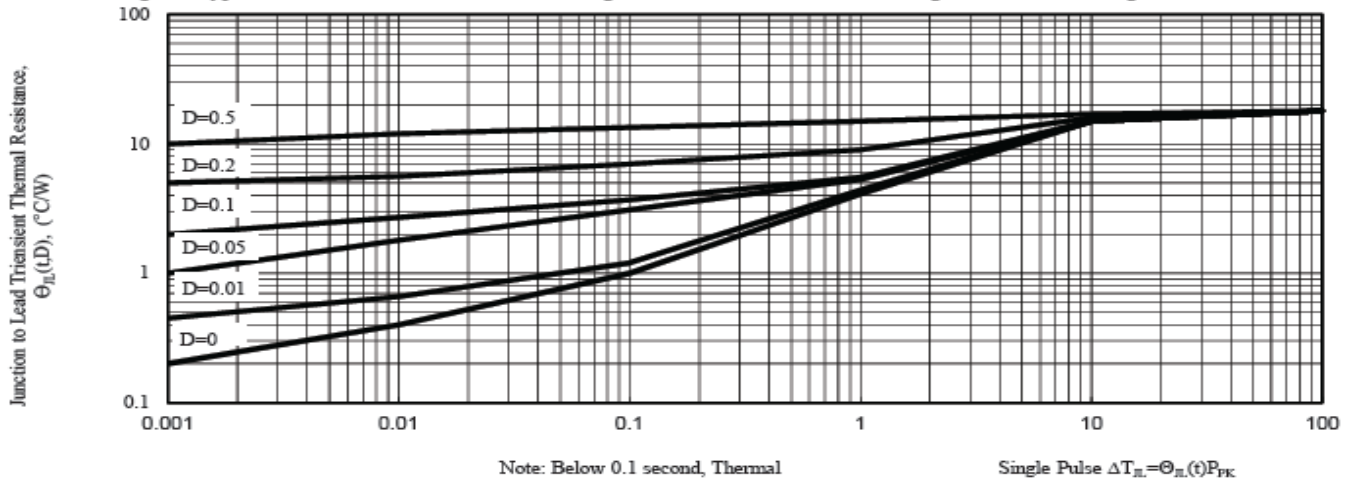


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

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 (uA) @V _R	V _R (V)	I _{ZM} (mA)
SMB5333A	333A	3.3	3.14	3.47	380	3.0	400	1.00	300	1.0	1437.0
SMB5334A	334A	3.6	3.42	3.78	350.0	2.5	500	1.00	150	1.0	1317.0
SMB5335A	335A	3.9	3.71	4.10	320.0	2.0	500	1.00	50	1.0	1216.0
SMB5336A	336A	4.3	4.09	4.52	290.0	2.0	500	1.00	10	1.0	1103.0
SMB5337A	337A	4.7	4.47	4.94	260.0	2.0	450	1.00	5	1.0	1009.0
SMB5338A	338A	5.1	4.85	5.36	240.0	1.5	400	1.00	1.0	1.0	930.0
SMB5339A	339A	5.6	5.32	5.88	220.0	1.0	400	1.00	1.0	2.0	846.0
SMB5340A	340A	6.0	5.70	6.30	200.0	1.0	300	1.00	1.0	3.0	790.0
SMB5341A	341A	6.2	5.89	6.51	200.0	1.0	200	1.00	1.0	3.0	765.0
SMB5342A	342A	6.8	6.46	7.14	175.0	1.0	200	1.00	10.0	5.2	700.0
SMB5343A	343A	7.5	7.13	7.88	175.0	1.5	200	1.00	10.0	5.7	630.0
SMB5344A	344A	8.2	7.79	8.61	150.0	1.5	200	1.00	10.0	6.2	580.0
SMB5345A	345A	8.7	8.27	9.14	150.0	2.0	200	1.00	10.0	6.6	545.0
SMB5346A	346A	9.1	8.65	9.56	150.0	2.0	150	1.00	7.5	6.9	520.0
SMB5347A	347A	10.0	9.50	10.50	125.0	2.0	125	1.00	5	7.6	475.0
SMB5348A	348A	11.0	10.45	11.55	125.0	2.5	125	1.00	5	8.4	430.0
SMB5349A	349A	12.0	11.40	12.60	100.0	2.5	125	1.00	2	9.1	395.0
SMB5350A	350A	13.0	12.35	13.65	100.0	2.5	100	1.00	1	9.9	365.0
SMB5351A	351A	14.0	13.30	14.70	100.0	2.5	75	1.00	1	10.6	340.0
SMB5352A	352A	15.0	14.25	15.75	75.0	2.5	75	1.00	1	11.5	315.0
SMB5353A	353A	16.0	15.20	16.80	75.0	2.5	75	1.00	1	12.2	295.0
SMB5354A	354A	17.0	16.15	17.85	70.0	2.5	75	1.00	0.5	12.9	280.0
SMB5355A	355A	18.0	17.10	18.90	65.0	2.5	75	1.00	0.5	13.7	265.0
SMB5356A	356A	19.0	18.05	19.95	65.0	3.0	75	1.00	0.5	14.4	250.0
SMB5357A	357A	20.0	19.00	21.00	65.0	3.0	75	1.00	0.5	15.2	237.0
SMB5358A	358A	22.0	20.90	23.10	50.0	3.5	75	1.00	0.5	16.7	216.0
SMB5359A	359A	24.0	22.80	25.20	50.0	3.5	100	1.00	0.5	18.2	198.0
SMB5360A	360A	25.0	23.75	26.25	50.0	4.0	110	1.00	0.5	19.0	190.0
SMB5361A	361A	27.0	25.65	28.35	50.0	5.0	120	1.00	0.5	20.6	176.0
SMB5362A	362A	28.0	26.60	29.40	50.0	6.0	130	1.00	0.5	21.2	170.0
SMB5363A	363A	30.0	28.50	31.50	40.0	8.0	140	1.00	0.5	22.8	158.0
SMB5364A	364A	33.0	31.35	34.65	40.0	10.0	150	1.00	0.5	25.1	144.0
SMB5365A	365A	36.0	34.20	37.80	30.0	11.0	160	1.00	0.5	27.4	132.0
SMB5366A	366A	39.0	37.05	40.95	30.0	14.0	170	1.00	0.5	29.7	122.0
SMB5367A	367A	43.0	40.85	45.15	30.0	20.0	190	1.00	0.5	32.7	110.0
SMB5368A	368A	47.0	44.65	49.35	25.0	25.0	210	1.00	0.5	35.8	100.0
SMB5369A	369A	51.0	48.45	53.55	25.0	27.0	230	1.00	0.5	38.8	93.0
SMB5370A	370A	56.0	53.20	58.80	20.0	35.0	280	1.00	0.5	42.6	86.0
SMB5371A	371A	60.0	57.00	63.00	20.0	40.0	350	1.00	0.5	42.5	79.0
SMB5372A	372A	62.0	58.90	65.10	20.0	42.0	400	1.00	0.5	47.1	76.0
SMB5373A	373A	68.0	64.60	71.40	20.0	44.0	500	1.00	0.5	51.7	70.0
SMB5374A	374A	75.0	71.25	78.75	20.0	45.0	620	1.00	0.5	56.0	63.0
SMB5375A	375A	82.0	77.90	86.10	15.0	65.0	720	1.00	0.5	62.2	58.0
SMB5376A	376A	87.0	82.65	91.35	15.0	75.0	760	1.00	0.5	66.0	54.5
SMB5377A	377A	91.0	86.45	95.55	15.0	75.0	760	1.00	0.5	69.2	52.5
SMB5378A	378A	100.0	95.00	105.00	12.0	90.0	800	1.00	0.5	76.0	47.5
SMB5379A	379A	110.0	104.50	115.50	12.0	125.0	1000	1.00	0.5	83.6	43.0
SMB5380A	380A	120.0	114.00	126.00	10.0	170.0	1150	1.00	0.5	91.2	39.5
SMB5381A	381A	130.0	123.50	136.50	10.0	190.0	1250	1.00	0.5	98.8	36.6
SMB5382A	382A	140.0	133.00	147.00	8.0	230.0	1500	1.00	0.5	106.0	34.0
SMB5383A	383A	150.0	142.50	157.50	8.0	330.0	1500	1.00	0.5	114.0	31.6
SMB5384A	384A	160.0	152.00	168.00	8.0	350.0	1650	1.00	0.5	122.0	29.4
SMB5385A	385A	170.0	161.50	178.50	8.0	380.0	1750	1.00	0.5	129.0	28.0
SMB5386A	386A	180.0	171.00	189.00	5.0	430.0	1750	1.00	0.5	137.0	26.4
SMB5387A	387A	190.0	180.50	199.50	5.0	450.0	1850	1.00	0.5	144.0	25.0
SMB5388A	388A	200.0	190.00	210.00	5.0	480.0	1850	1.00	0.5	152.0	23.6

Remark:

The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.