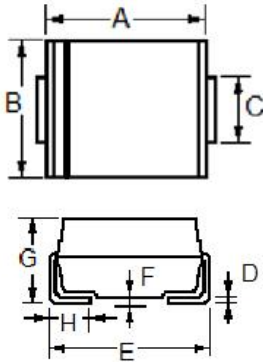


1SMB5913-5956B SMD Zener Diodes



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	4.060	4.570	0.160	0.180
B	3.300	3.940	0.130	0.155
C	1.950	2.200	0.077	0.086
D	0.125	0.305	0.006	0.012
E	5.110	5.490	0.251	0.220
F	-----	0.203	-----	0.008
G	2.130	2.440	0.084	0.096
H	0.760	1.520	0.030	0.060

Maximum Ratings And Thermal Characteristics Rating at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Units
Power Dissipation	P_D	3	W
Thermal Resistance Junction To Ambient Air	$R_{\theta JA}$	100	°C/W
Thermal Resistance Junction To Leads	$R_{\theta JL}$	25	°C/W
Storage Temperature Range	T_{STG}	-55 to 150	°C
Operating Junction Temperature Range	T_J	-55 to 150	°C

Parameter	Test Conditions	Symbol	Value	Unit
Forward voltage	IF=200mA	VF	1.5	V

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

Part Number	Zener voltage		Test current	Dynamic impedance	Knee current	Knee impedance	Reverse current	Reverse voltage	Max. DC current
	VZ /V		IZT	ZZT	IZK	ZZK	IR (Max.)	VR	IZM
	Vz (MIN)	Vz (MAX)	m A	Ω	m A	Ω	μAdc	V	mA
1SMB5913B	3.135	3.465	113.6	10.0	1	500	100	1.0	454
1SMB5914B	3.420	3.780	104.2	9.0	1	500	75	1.0	416
1SMB5915B	3.705	4.095	96.1	7.5	1	500	25	1.0	384
1SMB5916B	4.085	4.515	87.2	6.0	1	500	5	1.0	348
1SMB5917B	4.465	4.935	79.8	5.0	1	500	5	1.5	319
1SMB5918B	4.845	5.355	73.5	4.0	1	350	5	2.0	294
1SMB5919B	5.320	5.880	66.9	2.0	1	250	5	3.0	267
1SMB5920B	5.890	6.510	60.5	2.0	1	200	5	4.0	241
1SMB5921B	6.460	7.140	55.1	2.5	1	200	5	5.2	220
1SMB5922B	7.125	7.875	50.0	3.0	0.5	400	5	6.0	200
1SMB5923B	7.790	8.610	45.7	3.5	0.5	400	5	6.5	182
1SMB5924B	8.645	9.555	41.2	4.0	0.5	500	5	7.0	164
1SMB5925B	9.500	10.500	37.5	4.5	0.25	500	5	8.0	150
1SMB5926B	10.450	11.550	34.1	5.5	0.25	550	1	8.4	136
1SMB5927B	11.400	12.600	31.2	6.5	0.25	550	1	9.1	125
1SMB5928B	12.350	13.650	28.8	7.0	0.25	550	1	9.9	115
1SMB5929B	14.250	15.750	25.0	9.0	0.25	600	1	11.4	100
1SMB5930B	15.200	16.800	23.4	10.0	0.25	600	1	12.2	93
1SMB5931B	17.100	18.900	20.8	12.0	0.25	650	1	13.7	83
1SMB5932B	19.000	21.000	18.7	14.0	0.25	650	1	15.2	75
1SMB5933B	20.900	23.100	17.0	17.5	0.25	650	1	16.7	68
1SMB5934B	22.800	25.200	15.6	19.0	0.25	700	1	18.2	62
1SMB5935B	25.650	28.350	13.9	23.0	0.25	700	1	20.6	55
1SMB5936B	28.500	31.500	12.5	28.0	0.25	750	1	22.8	50
1SMB5937B	31.350	34.650	11.4	33.0	0.25	800	1	25.1	45
1SMB5938B	34.200	37.800	10.4	38.0	0.25	850	1	27.4	41
1SMB5939B	37.050	40.950	9.6	45.0	0.25	900	1	29.7	38
1SMB5940B	40.850	45.150	8.7	53.0	0.25	950	1	32.7	34
1SMB5941B	44.650	49.350	8.0	67.0	0.25	1000	1	35.8	31
1SMB5942B	48.450	53.550	7.3	70.0	0.25	1100	1	38.8	29
1SMB5943B	53.200	58.800	6.7	86.0	0.25	1300	1	42.6	26
1SMB5944B	58.900	65.100	6.0	100.0	0.25	1500	1	47.1	24

1SMB5945B	64.600	71.400	5.5	120.0	0.25	1700	1	51.7	22
1SMB5946B	71.250	78.8	5.0	140.0	0.25	2000	1	56.0	20
1SMB5947B	77.900	86.1	4.6	160.0	0.25	2500	1	62.2	18
1SMB5948B	86.450	95.6	4.1	200.0	0.25	3000	1	69.2	16
1SMB5949B	95.000	105.0	3.7	250.0	0.25	3100	1	76.0	15
1SMB5950B	104.500	115.5	3.4	300.0	0.25	4000	1	83.6	13
1SMB5951B	114.000	126.0	3.1	380.0	0.25	4500	1	91.2	12
1SMB5952B	123.500	136.5	2.9	450.0	0.25	5000	1	98.8	11
1SMB5953B	142.500	157.5	2.5	600.0	0.25	6000	1	114.0	10
1SMB5954B	152.000	168.0	2.3	700.0	0.25	6500	1	121.6	9
1SMB5955B	171.000	189.0	2.1	900.0	0.25	7000	1	136.8	8
1SMB5956B	190.000	210.0	1.9	1200.0	0.25	8000	1	152.0	7

1. Typical Characteristics

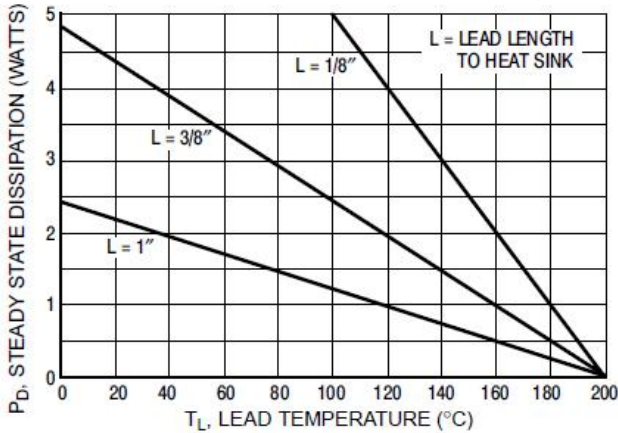


Figure 1. Power Temperature Derating Curve

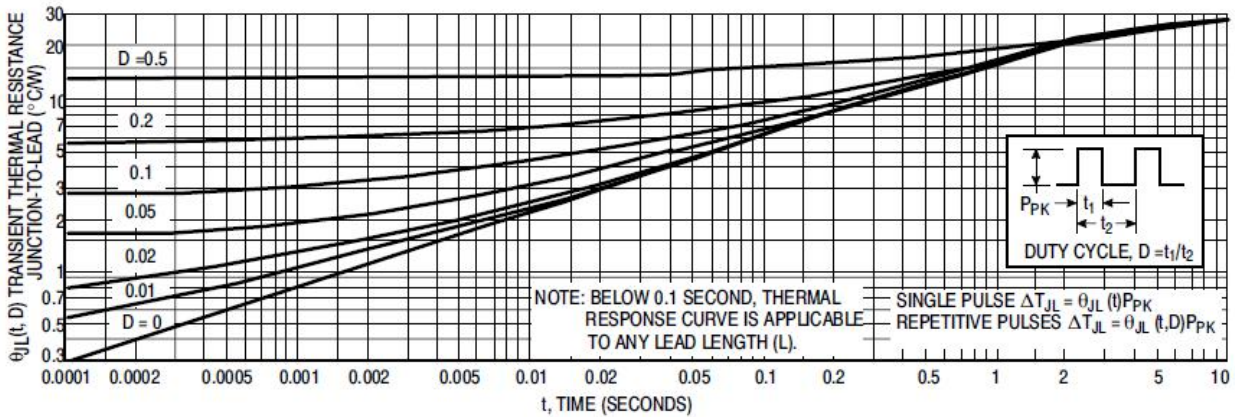


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

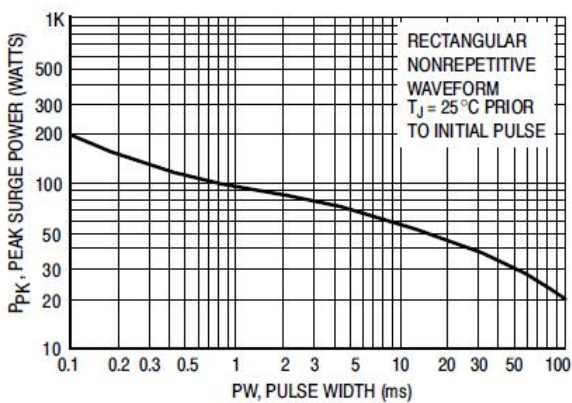


Figure 3. Maximum Surge Power

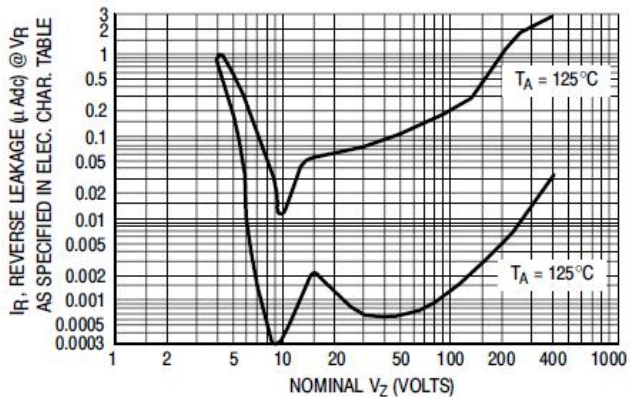


Figure 4. Typical Reverse Leakage