

Features

- P_{tot} 1.5W
- V_Z 3.3V- 68V
- The marking bar indicates the cathode

SMA



Marking: XXA
XX : 13 To 45

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	W	$T_L=75^{\circ}\text{C}$	1.5
Zener current	I_Z	mA		P_V / V_Z
Operation Junction and Storage Temperature Range	T_J, T_{stg}	$^{\circ}\text{C}$		-55 ~ +150

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Max
Thermal resistance	$R_{\theta JA}$	$^{\circ}\text{C/W}$	Between junction to ambient	75
	$R_{\theta JL}$	$^{\circ}\text{C/W}$	Between junction to lead	30
Forward voltage	V_F	V	$I_F=200\text{mA}$	1.2

Electrical Characteristics (T_A=25°C unless otherwise noted)

Number	Code	Zener Voltage V _Z (V)				Zener Impedance			Leakage Current		DC Zener Current
		Min.	Mom.	Max.	@ I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω)	Z _{ZK} (Ω)	@ I _{ZK} (mA)	I _R (μ A)	@ V _R (V)	I _{ZM} (mA)
1SMA5913A	913A	3.13	3.3	3.47	113.6	10	500	1.0	50	1.0	455
1SMA5914A	914A	3.42	3.6	3.78	104.2	9.0	500	1.0	35.5	1.0	417
1SMA5915A	915A	3.70	3.9	4.10	96.1	7.5	500	1.0	12.5	1.0	385
1SMA5916A	916A	4.08	4.3	4.52	87.2	6.0	500	1.0	2.5	1.0	349
1SMA5917A	917A	4.46	4.7	4.94	79.8	5.0	500	1.0	2.5	1.5	319
1SMA5918A	918A	4.84	5.1	5.36	73.5	4.0	350	1.0	2.5	2.0	294
1SMA5919A	919A	5.32	5.6	5.88	66.9	2.0	250	1.0	2.5	3.0	268
1SMA5920A	920A	5.89	6.2	6.51	60.5	2.0	200	1.0	2.5	4.0	242
1SMA5921A	921A	6.46	6.8	7.14	55.1	2.5	200	1.0	2.5	5.2	221
1SMA5922A	922A	7.12	7.5	7.88	50	3.0	400	0.5	2.5	6.0	200
1SMA5923A	923A	7.79	8.2	8.61	45.7	3.5	400	0.5	2.5	6.5	183
1SMA5924A	924A	8.64	9.1	9.56	41.2	4.0	500	0.5	2.5	7.0	165
1SMA5925A	925A	9.5	10	10.5	37.5	4.5	500	0.25	2.5	8.0	150
1SMA5926A	926A	10.45	11	11.55	34.1	5.5	550	0.25	0.5	8.4	136
1SMA5927A	927A	11.4	12	12.6	31.2	6.5	550	0.25	0.5	9.1	125
1SMA5928A	928A	12.35	13	13.65	28.8	7.0	550	0.25	0.5	9.9	115
1SMA5929A	929A	14.25	15	15.75	25	9.0	600	0.25	0.5	11.4	100
1SMA5930A	930A	15.2	16	16.8	23.4	10	600	0.25	0.5	12.2	94
1SMA5931A	931A	17.1	18	18.9	20.8	12	650	0.25	0.5	13.7	83
1SMA5932A	932A	19	20	21	18.7	14	650	0.25	0.5	15.2	75
1SMA5933A	933A	20.9	22	23.1	17	17.5	650	0.25	0.5	16.7	68
1SMA5934A	934A	22.8	24	25.2	15.6	19	700	0.25	0.5	18.2	63
1SMA5935A	935A	25.65	27	28.35	13.9	23	700	0.25	0.5	20.6	56
1SMA5936A	936A	28.5	30	31.5	12.5	26	750	0.25	0.5	22.8	50
1SMA5937A	937A	31.35	33	34.65	11.4	33	800	0.25	0.5	25.1	45
1SMA5938A	938A	34.2	36	37.8	10.4	38	850	0.25	0.5	27.4	42
1SMA5939A	939A	37.05	39	40.95	9.6	45	900	0.25	0.5	29.7	38
1SMA5940A	940A	40.85	43	45.15	8.7	53	950	0.25	0.5	32.7	35
1SMA5941A	941A	44.65	47	49.35	8.0	67	1000	0.25	0.5	35.8	32
1SMA5942A	942A	48.45	51	53.55	7.3	70	1100	0.25	0.5	38.8	29
1SMA5943A	943A	53.2	56	58.8	6.7	86	1300	0.25	0.5	42.6	27
1SMA5944A	944A	58.9	62	65.1	6.0	100	1500	0.25	0.5	47.1	24
1SMA5945A	945A	64.6	68	71.4	5.5	120	1700	0.25	0.5	51.7	22

Typical Characteristics

Fig. 1 - Power Temperature Derating Curve

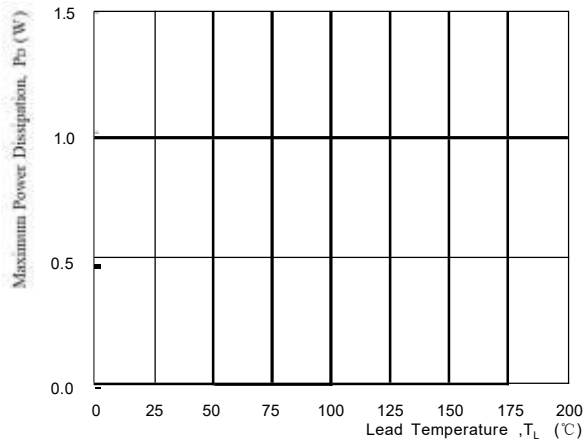


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

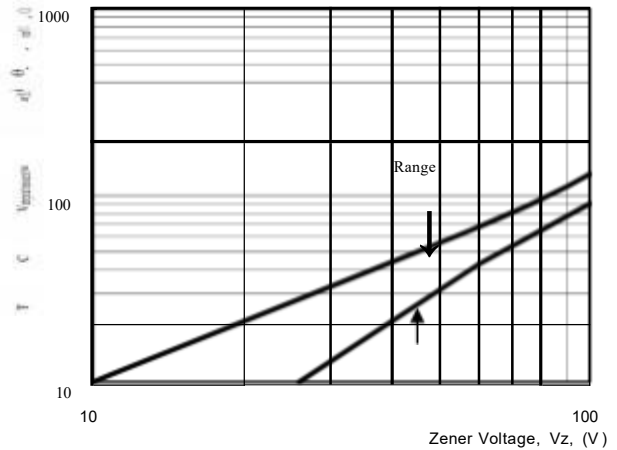


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

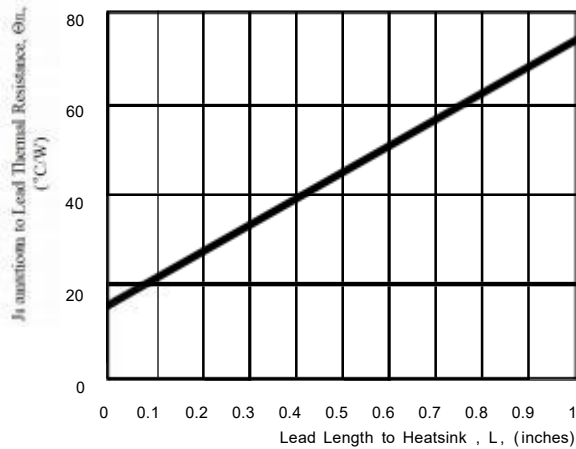


Fig. 4 - Maximum Surge Power

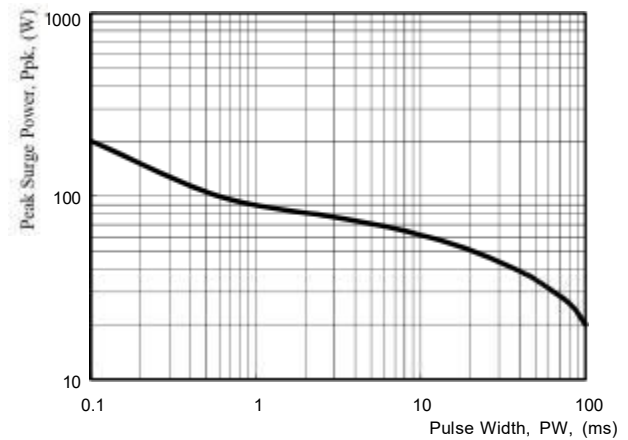
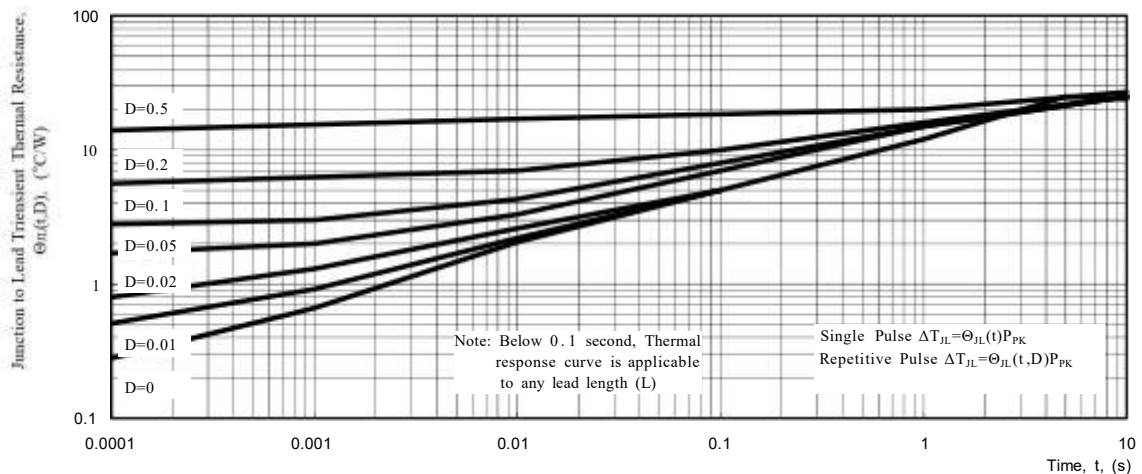
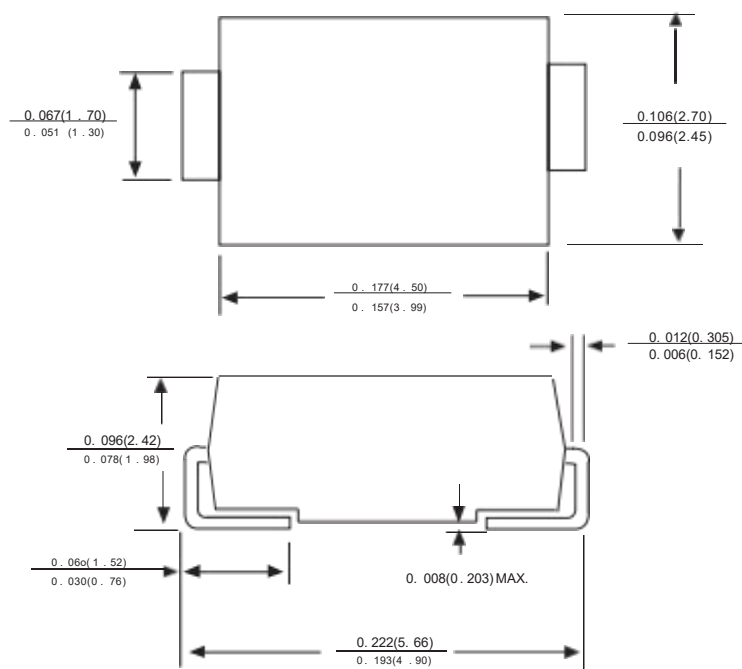


Fig. 5 - Typical Thermal Response L, Lead Length=3/8 inch

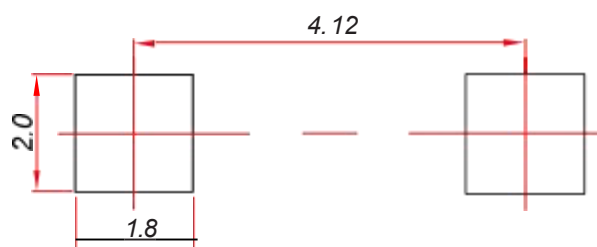


SMA Package outline Dimensions



Dimensions in inches and (millimeters)

SMA Suggested pad Layout



Note:

1. controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.