SMA

Marking:XXB

XX： 13 To 56

Features

- P_{tot} 3W
- V_Z 3.3V- 200V
- The marking bar indicates the cathode

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	W	T_L=75℃	3.0
Zener current	I_Z	mA		P_V /V_Z
Operation Junction and Storage Temperature Range	T_J,T_{stg}	℃		-55 ~ +150

Electrical Characteristics（Ta=25℃ Unless otherwise specified）

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

Electrical Characteristics (T_A=25℃unless otherwise noted)

Number	Code	Zener Voltage		Zener Impedance			Leakage Current		DC Zener Current
		V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @ V_R		I_{ZM}
		(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
1SMA5913B	813B	3.3	227.3	10.0	500	1.00	100.0	1.0	817
1SMA5914B	814B	3.6	208.3	9.0	500	1.00	75.0	1.0	749
1SMA5915B	815B	3.9	192.0	4.5	400	1.00	50.0	1.0	691
1SMA5916B	816B	4.3	174.0	4.5	400	1.00	30.0	1.0	627
1SMA5917B	817B	4.7	160.0	4.0	500	1.00	20.0	1.0	573
1SMA5918B	818B	5.1	147.0	3.5	550	1.00	5.0	1.0	528
1SMA5919B	819B	5.6	134.0	2.5	600	1.00	5.0	2.0	481
1SMA5920B	820B	6.2	121.0	1.5	700	1.00	5.0	3.0	435
1SMA5921B	821B	6.8	110.0	2.0	700	1.00	5.0	4.0	393
1SMA5922B	822B	7.5	100.0	2.0	700	0.50	5.0	5.0	360
1SMA5923B	823B	8.2	91.0	2.3	700	0.50	5.0	6.0	330
1SMA5924B	824B	9.1	82.0	2.5	700	0.50	3.0	7.0	297
1SMA5925B	825B	10.0	75.0	3.5	700	0.25	3.0	7.6	270
1SMA5926B	826B	11.0	68.0	4.0	700	0.25	1.0	8.4	225
1SMA5927B	827B	12.0	63.0	4.5	700	0.25	1.0	9.1	246
1SMA5928B	828B	13.0	58.0	4.5	700	0.25	0.5	9.9	208
1SMA5929B	829B	15.0	50.0	5.5	700	0.25	0.5	11.4	180
1SMA5930B	830B	16.0	47.0	5.5	700	0.25	0.5	12.2	169
1SMA5931B	831B	18.0	42.0	6.0	750	0.25	0.5	13.7	150
1SMA5932B	832B	20.0	37.0	7.0	750	0.25	0.5	15.2	135
1SMA5933B	833B	22.0	34.0	8.0	750	0.25	0.5	16.7	123
1SMA5934B	834B	24.0	31.0	9.0	750	0.25	0.5	18.2	112
1SMA5935B	835B	27.0	28.0	10.0	750	0.25	0.5	20.6	100
1SMA5936B	836B	30.0	25.0	16.0	1000	0.25	0.5	22.5	90
1SMA5937B	837B	33.0	23.0	20.0	1000	0.25	0.5	25.1	82
1SMA5938B	838B	36.0	21.0	22.0	1000	0.25	0.5	27.4	75
1SMA5939B	839B	39.0	19.0	28.0	1000	0.25	0.5	29.7	69
1SMA5940B	840B	43.0	17.0	33.0	1500	0.25	0.5	32.7	63
1SMA5941B	841B	47.0	16.0	38.0	1500	0.25	0.5	35.6	57
1SMA5942B	842B	51.0	15.0	45.0	1500	0.25	0.5	38.8	53
1SMA5943B	843B	56.0	13.0	50.0	2000	0.25	0.5	42.6	48
1SMA5944B	844B	62.0	12.0	55.0	2000	0.25	0.5	47.1	44
1SMA5945B	845B	68.0	11.0	70.0	2000	0.25	0.5	51.7	40
1SMA5946B	846B	75.0	10.0	85.0	2000	0.25	0.5	56.0	36
1SMA5947B	847B	82.0	9.1	95.0	3000	0.25	0.5	62.2	33
1SMA5948B	848B	91.0	8.2	115	3000	0.25	0.5	69.2	30
1SMA5949B	849B	100.0	7.5	160	3000	0.25	0.5	76.0	27
1SMA5950B	850B	110.0	6.8	225	4000	0.25	0.5	83.6	25
1SMA5951B	851B	120.0	6.3	300	4500	0.25	0.5	91.2	22
1SMA5952B	852B	130.0	5.8	375	5000	0.25	0.5	98.8	21
1SMA5953B	853B	150.0	5.0	550	6000	0.25	0.5	114.0	18
1SMA5954B	854B	160.0	2.3	700.0	6500	0.25	0.5	121.6	9
1SMA5955B	855B	180.0	2.1	900.0	7000	0.25	0.5	136.8	8
1SMA5956B	856B	200.0	1.9	1200.0	8000	0.25	0.5	152.0	7

Typical Characteristics

Fig. 1 - Power Temperature Derating Curve

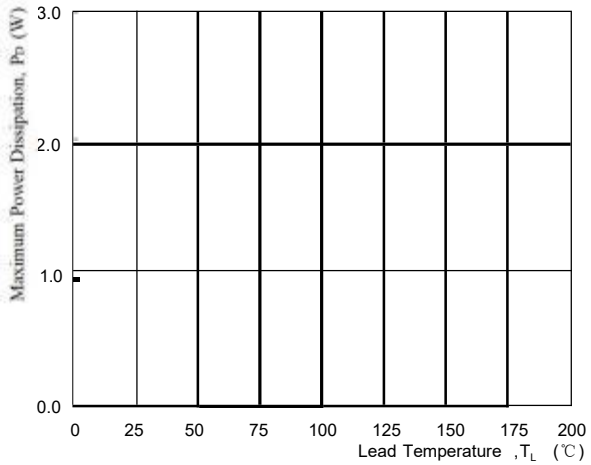


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

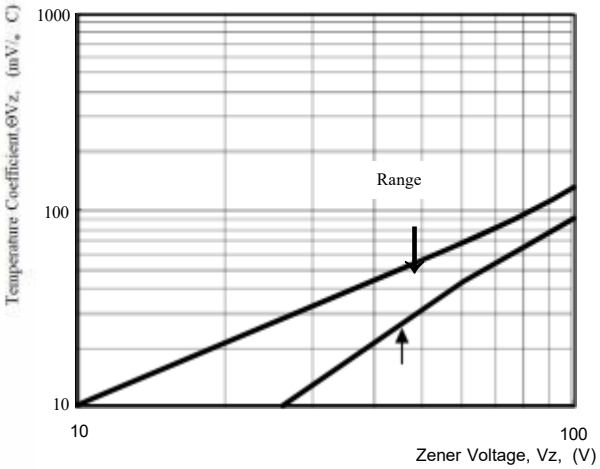


Fig. 3 - Typical Thermal Resistance v.s. Lead Leng

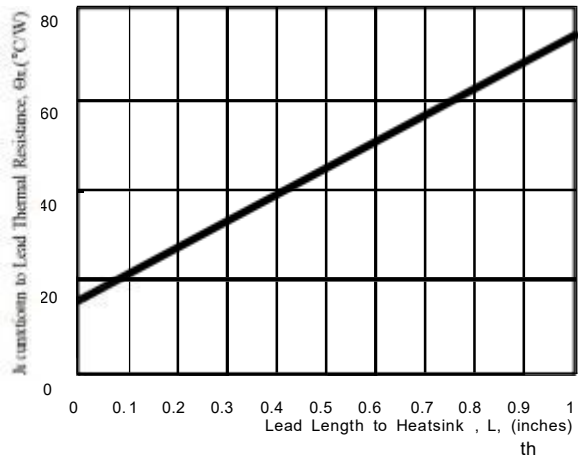


Fig. 4 - Maximum Surge Power

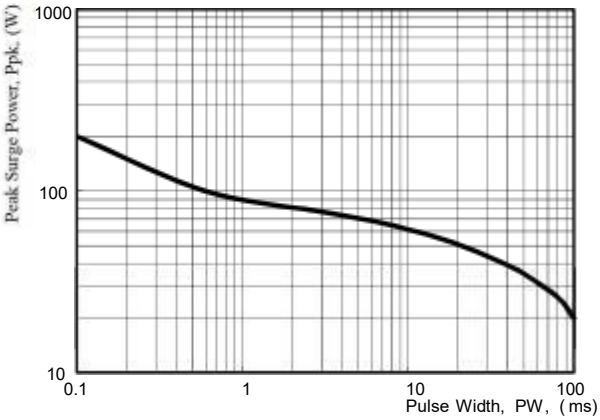
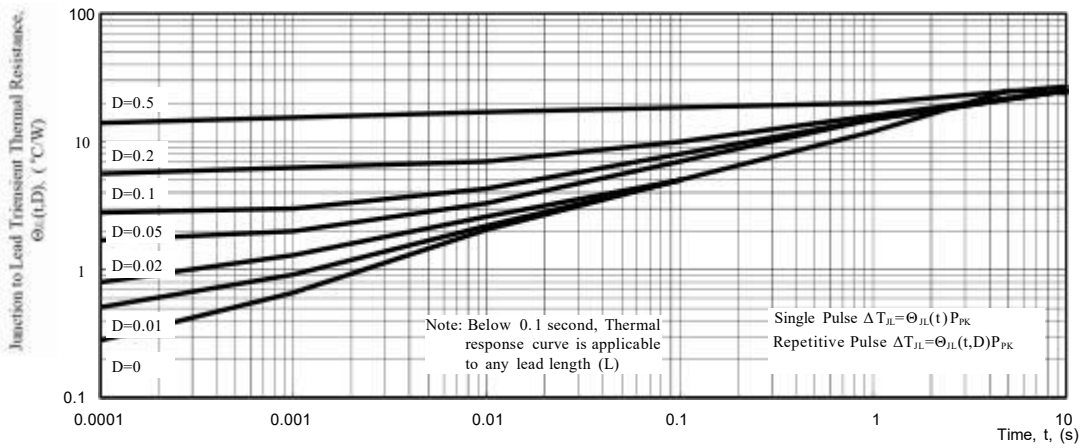
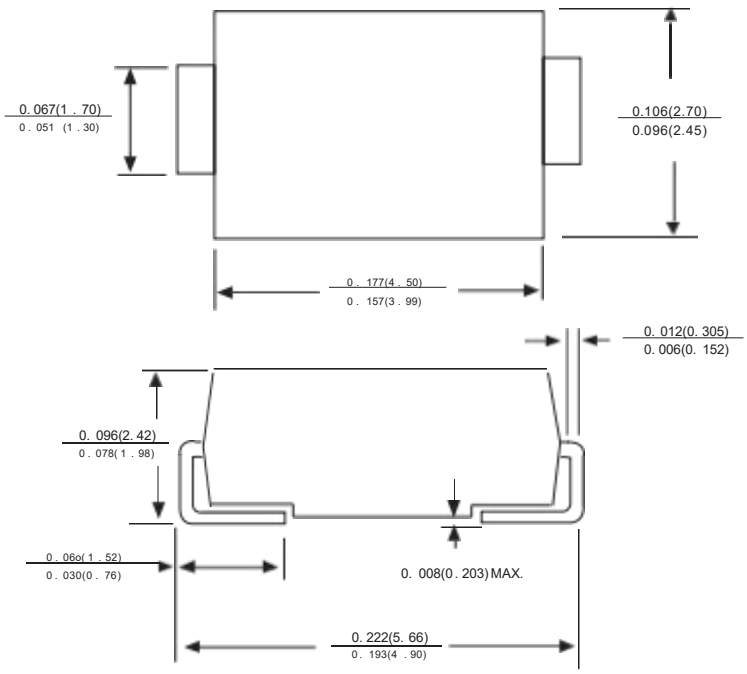


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

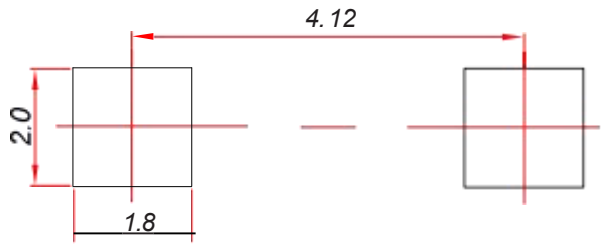


SMA package outline Dimensions



Dimensions in inches and (millimeters)

SMA Suggested pad Layout



Note:

1.controlling dimension:in millimeters.

2. General tolerance:±0.05mm.

3.The pad layout is for reference purposes only.