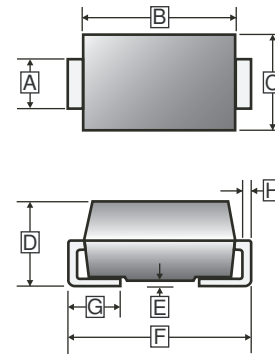


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Glass passivated chip
- Low leakage
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Lead (Pb)-free component
- For use in stabilizing and clipping circuits with high power rating

SMA



MECHANICAL DATA

- Case : SMA
- Epoxy : UL 94V-0 rate flame retardant
- Polarity : Laser band denotes cathode end
- Weight : 0.062 grams (Approximately)

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.24	1.65	E	-	0.203
B	3.99	4.60	F	4.80	5.28
C	2.50	2.90	G	0.76	1.52
D	1.98	2.44	H	0.15	0.305

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13' inch

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
DC Power Dissipation @ $T_L=75^\circ\text{C}$ ¹	P_D	1.5	W
Maximum Forward Voltage @ $I_F=200\text{mA}$	V_F	1.5	V
Junction Temperature Range	T_J	-55 ~ + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ + 150	$^\circ\text{C}$

Notes :

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

ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.

PART NUMBER	Nominal Zener Voltage		Max. Zener Impedance				Max. Reverse Leakage Current		Max. DC Zener
	$V_z @ I_{zT}$		$Z_{zT} @ I_{zT}$		$Z_{zK} @ I_{zK}$		$I_R @ V_R$		I_{zM}
	Nom.V	mA	Ω	mA	Ω	mA	μA	V	mA
SMA5920B	6.2	60.5	2.0	60.5	200	1.00	2.5	4.0	120
SMA5921B	6.8	55.1	2.5	55.1	200	1.00	2.5	5.2	220
SMA5922B	7.5	50.0	3.0	50.0	400	0.50	2.5	6.0	200
SMA5923B	8.2	45.7	3.5	45.7	400	0.50	2.5	6.5	182
SMA5924B	9.1	41.2	4.0	41.2	500	0.50	2.5	7.0	164
SMA5925B	10.0	37.5	4.5	37.5	500	0.25	2.5	8.0	150
SMA5926B	11.0	34.1	5.5	34.1	550	0.25	0.5	8.4	136
SMA5927B	12.0	31.2	6.5	31.2	550	0.25	0.5	9.1	125
SMA5928B	13.0	28.8	7.0	28.8	550	0.25	0.5	9.9	115
SMA5929B	15.0	25.0	9.0	25.0	600	0.25	0.5	11.4	100
SMA5930B	16.0	23.4	10	23.4	600	0.25	0.5	12.2	93
SMA5931B	18.0	20.8	12	20.8	650	0.25	0.5	13.7	83
SMA5932B	20.0	18.7	14	18.7	650	0.25	0.5	15.2	75
SMA5933B	22.0	17.0	18	17.0	650	0.25	0.5	16.7	68
SMA5934B	24.0	15.6	19	15.6	700	0.25	0.5	18.2	62
SMA5935B	27.0	13.9	23	13.9	700	0.25	0.5	20.6	55
SMA5936B	30.0	12.5	26	12.5	750	0.25	0.5	22.8	50
SMA5937B	33.0	11.4	33	11.4	800	0.25	0.5	25.1	45
SMA5938B	36.0	10.4	38	10.4	850	0.25	0.5	27.4	41
SMA5939B	39.0	9.6	45	9.6	900	0.25	0.5	29.7	38
SMA5940B	43.0	8.7	53	8.7	950	0.25	0.5	32.7	34
SMA5941B	47.0	8.0	67	8.0	1000	0.25	0.5	35.8	31
SMA5942B	51.0	7.3	70	7.3	1100	0.25	0.5	38.8	29
SMA5943B	56.0	6.7	86	6.7	1300	0.25	0.5	42.6	26
SMA5944B	62.0	6.0	100	6.0	1500	0.25	0.5	47.1	24
SMA5945B	68.0	5.5	120	5.5	1700	0.25	0.5	51.7	22
SMA5946B	75.0	5.0	140	5.0	2000	0.25	0.5	56.0	20
SMA5947B	82.0	4.6	160	4.6	2500	0.25	0.5	62.2	18
SMA5948B	91.0	4.1	200	4.1	3000	0.25	0.5	69.2	16
SMA5949B	100.0	3.7	250	3.7	3100	0.25	0.5	76.0	15
SMA5950B	110.0	3.4	300	3.4	4000	0.25	0.5	83.6	13
SMA5951B	120.0	3.1	380	3.1	4500	0.25	0.5	91.2	12
SMA5952B	130.0	2.9	450	2.9	5000	0.25	0.5	98.8	11
SMA5953B	150.0	2.5	600	2.5	6000	0.25	0.5	114.0	10
SMA5954B	160.0	2.3	700	2.3	6500	0.25	0.5	121.6	9
SMA5955B	180.0	2.1	900	2.1	7000	0.25	0.5	136.8	8
SMA5956B	200.0	1.9	1200	1.9	8000	0.25	0.5	152.0	3.5

NOTES:

- The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
- The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{zT} per JEDEC Method

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Power Temperature Derating Curve

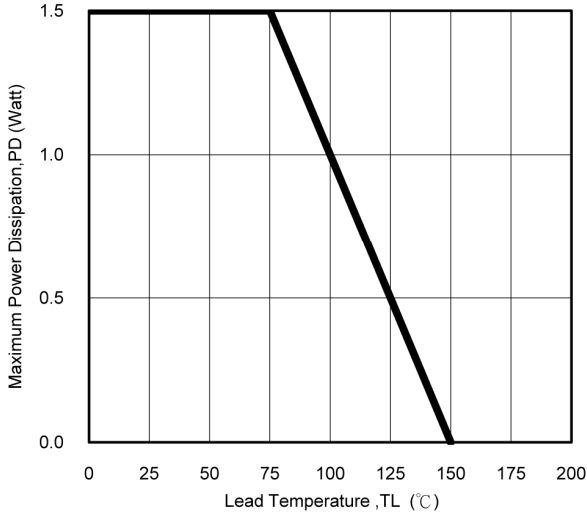


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

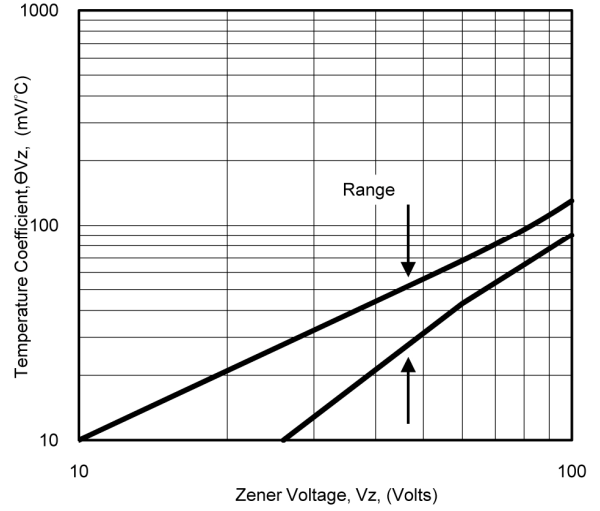


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

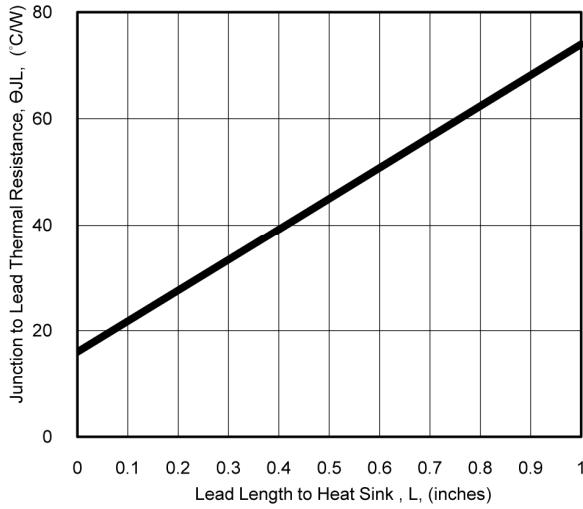


Fig. 4 - Maximum Surge Power

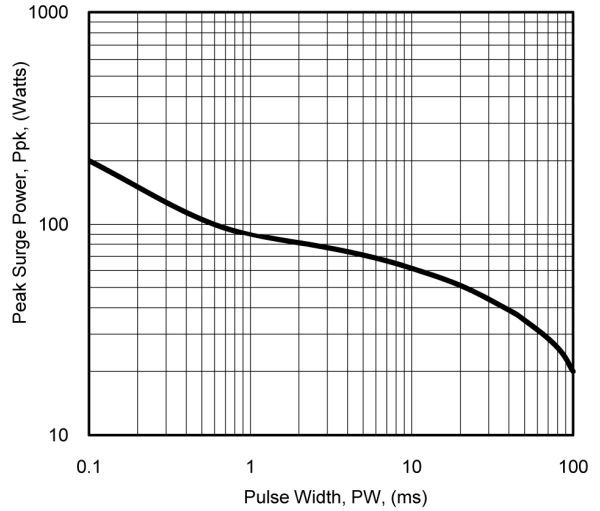


Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

