V_Z: 5.6 to 200 V
P_D: 1.5 W

Surface Mount Zener Diodes

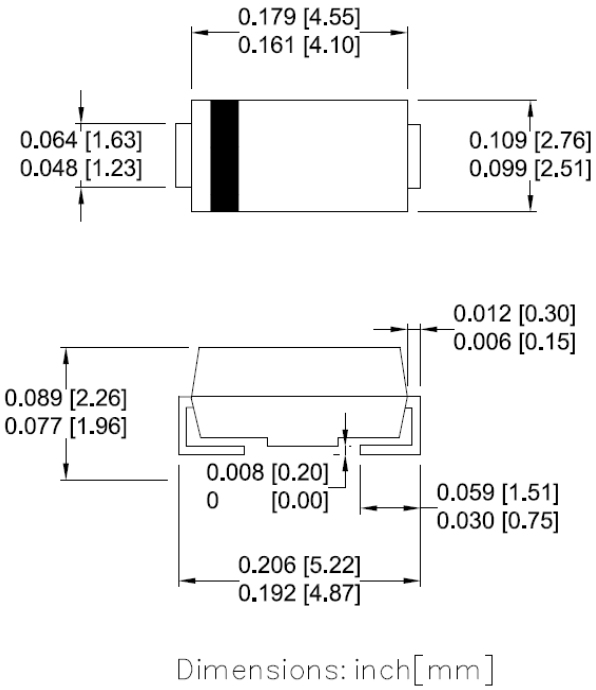
Features

- 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

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

SMA/ DO-214AC



Dimensions: inch[mm]

Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
DC power dissipation at T_L = 75 °C	P_D	1.5	W
Maximum forward voltage at I_F = 200 mA	V_F	1.5	V
Junction temperature range	T_J	- 55 to + 175	°C
Storage temperature range	T_{STG}	- 55 to + 175	°C

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

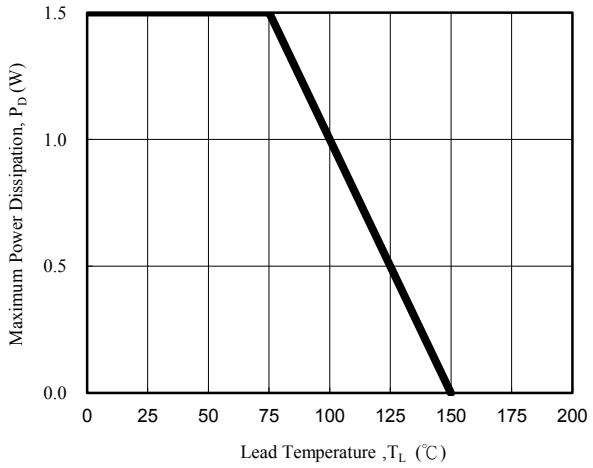


Fig. 1 - Power Temperature Derating Curve

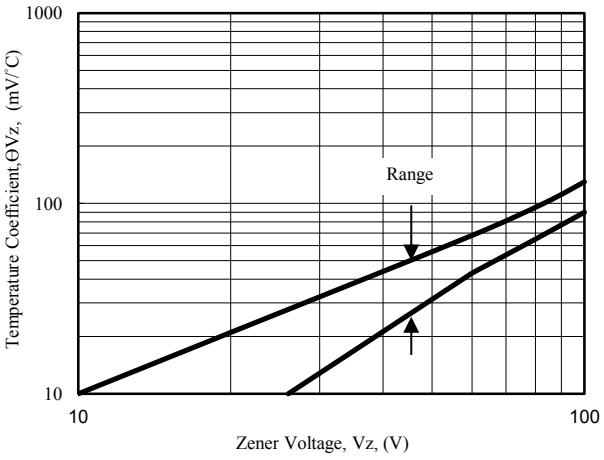


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

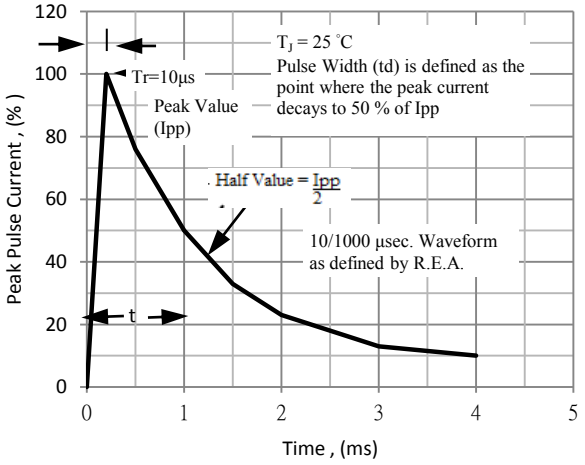


Fig. 3 - Pulse Waveform

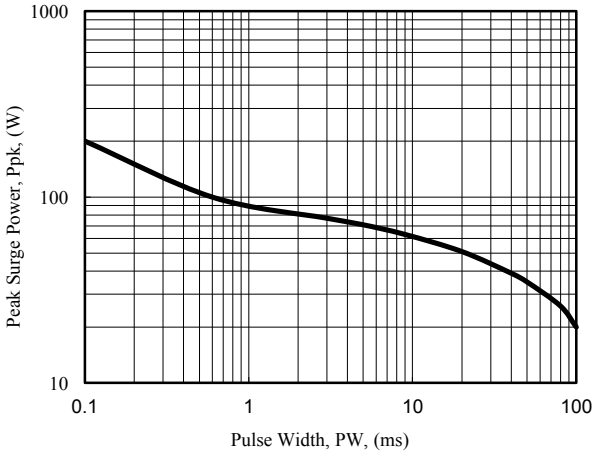


Fig. 4 - Maximum Surge Power

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number	Device Marking Code	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum 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)
SMA5919B	919B	5.6	66.9	2.0	250	1.00	5.0	3.0	267
SMA5920B	920B	6.2	60.5	2.0	200	1.00	2.5	4.0	120
SMA5921B	921B	6.8	55.1	2.5	200	1.00	2.5	5.2	220
SMA5922B	922B	7.5	50.0	3.0	400	0.50	2.5	6.0	200
SMA5923B	923B	8.2	45.7	3.5	400	0.50	2.5	6.5	182
SMA5924B	924B	9.1	41.2	4.0	500	0.50	2.5	7.0	164
SMA5925B	925B	10.0	37.5	4.5	500	0.25	2.5	8.0	150
SMA5926B	926B	11.0	34.1	5.5	550	0.25	0.5	8.4	136
SMA5927B	927B	12.0	31.2	6.5	550	0.25	0.5	9.1	125
SMA5928B	928B	13.0	28.8	7.0	550	0.25	0.5	9.9	115
SMA5929B	929B	15.0	25.0	9.0	600	0.25	0.5	11.4	100
SMA5930B	930B	16.0	23.4	10.0	600	0.25	0.5	12.2	93
SMA5931B	931B	18.0	20.8	12.0	650	0.25	0.5	13.7	83
SMA5932B	932B	20.0	18.7	14.0	650	0.25	0.5	15.2	75
SMA5933B	933B	22.0	17.0	17.5	650	0.25	0.5	16.7	68
SMA5934B	934B	24.0	15.6	19.0	700	0.25	0.5	18.2	62
SMA5935B	935B	27.0	13.9	23.0	700	0.25	0.5	20.6	55
SMA5936B	936B	30.0	12.5	26.0	750	0.25	0.5	22.8	50
SMA5937B	937B	33.0	11.4	33.0	800	0.25	0.5	25.1	45
SMA5938B	938B	36.0	10.4	38.0	850	0.25	0.5	27.4	41
SMA5939B	939B	39.0	9.6	45.0	900	0.25	0.5	29.7	38
SMA5940B	940B	43.0	8.7	53.0	950	0.25	0.5	32.7	34
SMA5941B	941B	47.0	8.0	67.0	1000	0.25	0.5	35.8	31
SMA5942B	942B	51.0	7.3	70.0	1100	0.25	0.5	38.8	29
SMA5943B	943B	56.0	6.7	86.0	1300	0.25	0.5	42.6	26
SMA5944B	944B	62.0	6.0	100.0	1500	0.25	0.5	47.1	24
SMA5945B	945B	68.0	5.5	120.0	1700	0.25	0.5	51.7	22
SMA5946B	946B	75.0	5.0	140.0	2000	0.25	0.5	56.0	20
SMA5947B	947B	82.0	4.6	160.0	2500	0.25	0.5	62.2	18
SMA5948B	948B	91.0	4.1	200.0	3000	0.25	0.5	69.2	16
SMA5949B	949B	100.0	3.7	250.0	3100	0.25	0.5	76.0	15
SMA5950B	950B	110.0	3.4	300.0	4000	0.25	0.5	83.6	13
SMA5951B	951B	120.0	3.1	380.0	4500	0.25	0.5	91.2	12
SMA5952B	952B	130.0	2.9	450.0	5000	0.25	0.5	98.8	11
SMA5953B	953B	150.0	2.5	600.0	6000	0.25	0.5	114.0	10
SMA5954B	954B	160.0	2.3	700.0	6500	0.25	0.5	121.6	9
SMA5955B	955B	180.0	2.1	900.0	7000	0.25	0.5	136.8	8
SMA5956B	956B	200.0	1.9	1200.0	8000	0.25	0.5	152.0	7

Notes :

(1) The type number listed have a standard tolerance on the nominal zener voltage of ± 5 %

(2) The revese surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IZT per method.