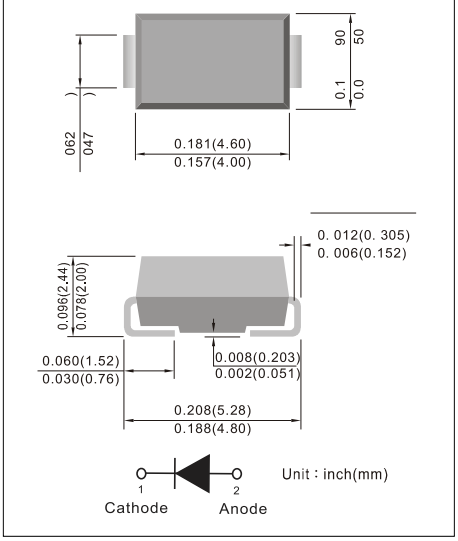
SMA59xx Sesies

Surface Mount Silicon Zener Diodes
Zener Voltage 3.3 ~ 240 V
1.5 Watt Power Dissipation

Features

- Glass passivated chip
- Built-in strain relief
- Low inductance
- High peak reverse power dissipation
- Low reverse leakage
- For use in stabilizing and clipping with high power rating
- Comply with RoHS standard, halogen-free

SMA/DO-214AC



Mechanical Data

- package:SMA/DO-214AC
- Terminal: All external surfaces are corrosion resistant with readily solderable leads
- Polarity: Cathode line denotes the cathode end
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any

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

PARAMETER	SYMBOL	Value	UNIT
DC power dissipation at T_L=75℃, measure at!zero lead length (Note 1) derate above 75℃	P_D	1.5	Watts
		20	mW/℃
	I_{FSM}	10	A
Operating junction temperature range	T_J	-!55 to +150	℃
Storage temperature range	T_{STG}	-!55 to +150	℃

Note 1: Mounted on Cu-Pad size 5mm x 5mm x 1.6mm on PCB

■ Electrical Specifica Tions(T_A=25°C unless otherwise noted)

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC	Marking Code
	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)	
SMA5913A	3.3	113.6	10	500	1.0	100	1.0	454	913A
SMA5914A	3.6	104.2	9.0	500	1.0	75	1.0	416	914A
SMA5915A	3.9	96.1	7.5	500	1.0	25	1.0	384	915A
SMA5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348	916A
SMA5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319	917A
SMA5918A	5.1	73.5	4.0	500	1.0	5.0	2.0	294	918A
SMA5919A	5.6	66.9	2.0	500	1.0	5.0	3.0	267	919A
SMA5920A	6.2	60.5	2.0	200	1.0	5.0	4.0	241	920A
SMA5921A	6.8	55.1	2.5	200	1.0	50	5.2	220	921A
SMA5922A	7.5	50.0	3.0	400	0.5	50	6.0	200	922A
SMA5923A	8.2	45.7	3.5	400	0.5	50	6.5	182	923A
SMA5924A	9.1	41.2	4.0	500	0.5	50	7.0	164	924A
SMA5925A	10	37.5	4.5	500	0.25	50	8.0	150	925A
SMA5926A	11	34.1	5.5	550	0.25	50	8.4	136	926A
SMA5927A	12	31.2	6.5	550	0.25	1.0	9.1	125	927A
SMA5928A	13	28.8	7.0	550	0.25	1.0	9.9	115	928A
SMA5929A	15	25.0	9.0	600	0.25	1.0	11.4	100	929A
SMA5930A	16	23.4	10	600	0.25	1.0	12.2	93	930A
SMA5931A	18	20.8	12	650	0.25	1.0	13.7	83	931A
SMA5932A	20	18.7	14	650	0.25	1.0	15.2	75	932A
SMA5933A	22	17.0	17.5	650	0.25	1.0	16.7	68	933A
SMA5934A	24	15.6	19	700	0.25	1.0	18.2	62	934A
SMA5935A	27	13.9	23	700	0.25	1.0	20.6	55	935A
SMA5936A	30	12.5	26	750	0.25	1.0	22.8	50	936A
SMA5937A	33	11.4	33	800	0.25	1.0	25.1	45	937A
SMA5938A	36	10.4	38	850	0.25	1.0	27.4	41	938A
SMA5939A	39	9.6	45	900	0.25	1.0	29.7	38	939A
SMA5940A	43	8.7	53	950	0.25	1.0	32.7	34	940A
SMA5941A	47	8.0	67	1000	0.25	1.0	35.8	31	941A
SMA5942A	51	7.3	70	1100	0.25	1.0	38.8	29	942A
SMA5943A	56	6.7	86	1300	0.25	1.0	42.6	26	943A
SMA5944A	62	6.0	100	1500	0.25	1.0	47.1	24	944A
SMA5945A	68	5.5	120	1700	0.25	1.0	51.7	22	945A
SMA5946A	75	5.0	140	2000	0.25	1.0	56.0	20	946A
SMA5947A	82	4.6	160	2500	0.25	1.0	62.2	18	947A
SMA5948A	91	4.1	200	3000	0.25	1.0	69.2	16	948A
SMA5949A	100	3.7	250	3100	0.25	1.0	76.0	15	949A
SMA5950A	110	3.4	300	4000	0.25	1.0	83.6	13	950A
SMA5951A	120	3.1	380	4500	0.25	1.0	91.2	12	951A
SMA5952A	130	2.9	450	5000	0.25	1.0	98.8	11	952A
SMA5953A	150	2.5	600	6000	0.25	1.0	114.0	10	953A
SMA5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0	954A
SMA5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0	955A
SMA5956A	200	1.9	1200	8000	0.25	1.0	152.0	7.0	956A
SMA5957A	240	1.5	1600	9000	0.25	1.0	182.4	6.0	957A

Notes: Suffix " A " indicates ± 10% tolerance, suffix " B " indicates ± 5.0% tolerance.
When the model suffix is "A", the product screen printing suffix is "A",
When the model suffix is "B", the product screen printing suffix is "B".

■ Characteristics Curves(T_A=25°C unless otherwise noted)

FIG. 1 STEADY STATE POWER DERATING

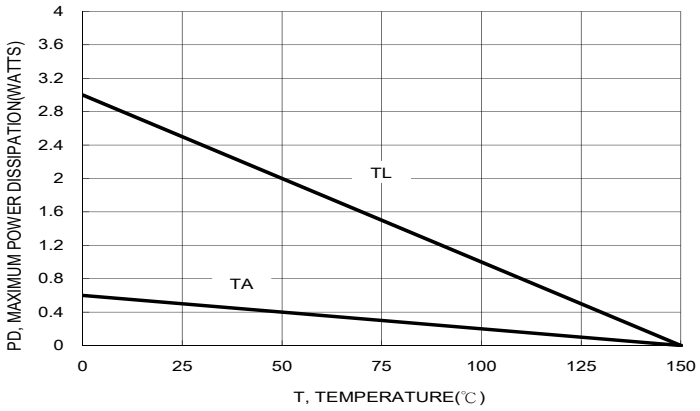


FIG. 2 Vz = 12 THRU 68 VOLTS

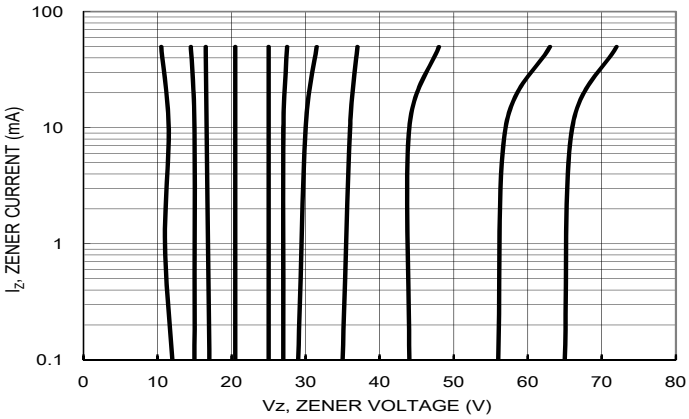


FIG.3 ZENER VOLTAGE 12 TO 68 VOLTS

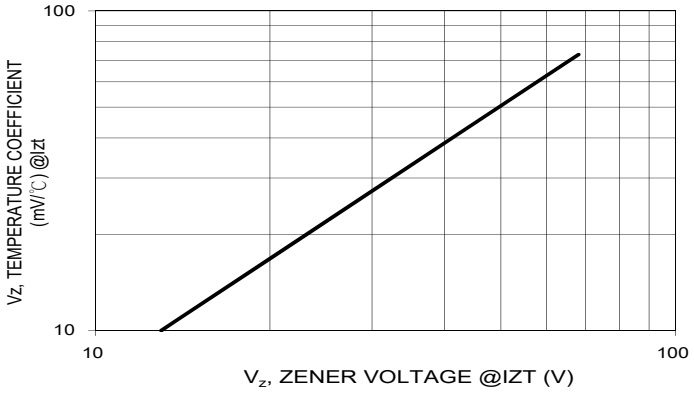


FIG. 4 EFFECT OF ZENER VOLTAGE

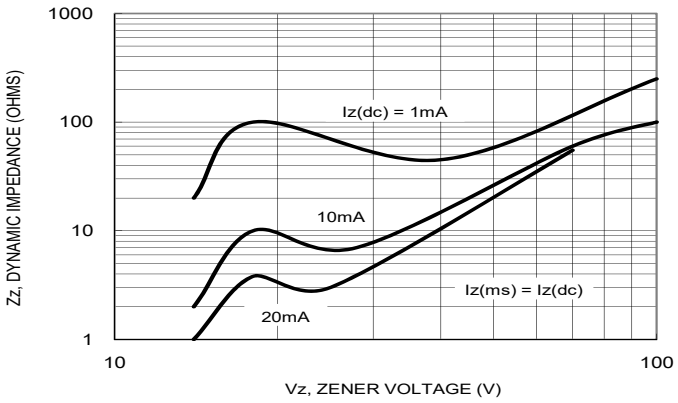


FIG.5 CAPACITANCE CURVE

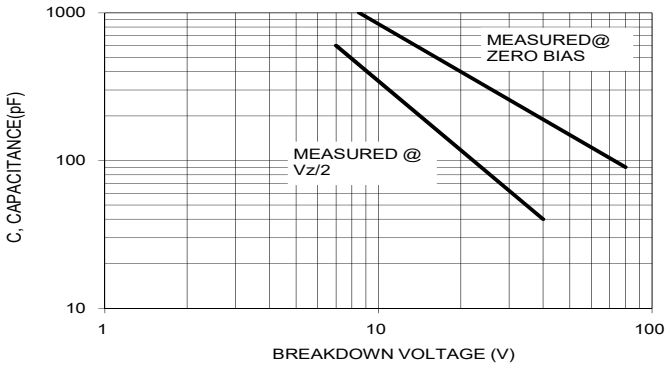


FIG. 6 TYPICAL PULSE RATING CURVE

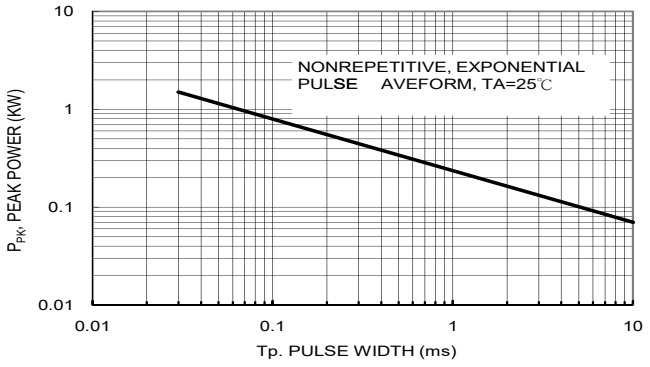


FIG. 7 PULSE WAVEFORM

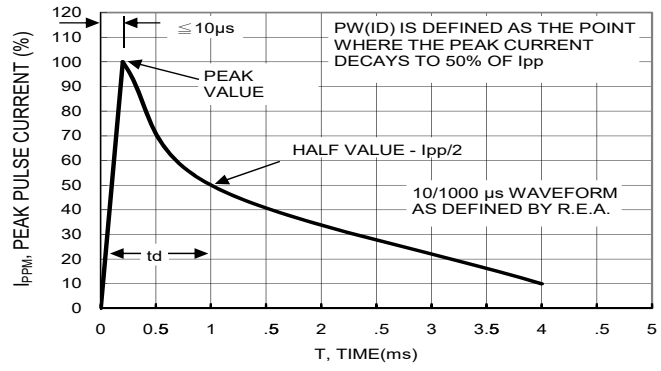


FIG. 8 PULSE WAVEFORM