

Surface Mount Zener Diodes

(Pb) Lead(Pb)-Free

Features:

- * 1.5W Power Dissipation
- * For Surface Mounted Applications
- * Zener Breakdown Voltage Range 6.8V to 68V

Mechanical Data

- * Case: Molded plastic SMA/DO-214AC
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-750 method 2026
- * Polarity: cathode band
- * Mounting position: Any
- * Weight: 0.064 gram

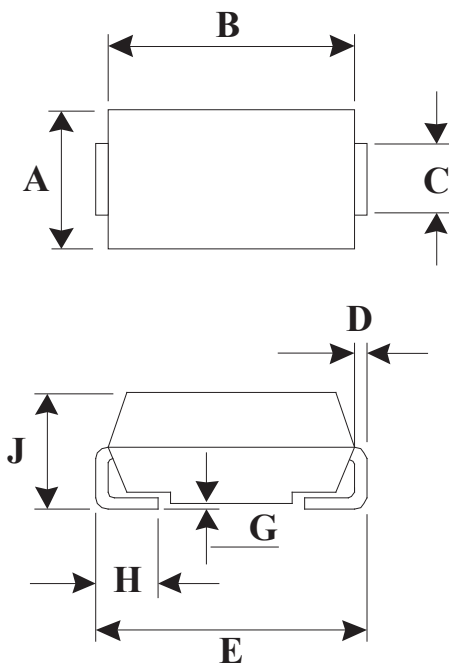
**SURFACE MOUNT
ZENER DIODES
1.5 WATTS**



SMA

SMA Outline Dimension

unit:mm



SMA		
Dim	Min	Max
A	2.20	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.48	5.59
G	0.10	0.20
H	0.76	1.52
J	1.70	2.62

Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless Otherwise Noted)

Characteristics	Symbol	Value	Unit
Half sine-wave superimposed on rated load ¹ (JEDEC method)	I_{FSM}	10	A
Power Dissipation ²	P_D	1.5	W
Maximun junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

NOTES : (1) Measurd on 8.3ms, single half-sine wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.
 (2) Mounted on 5.0mm²(.013mm thick) land areas.

Part No.	Electrical Characteristic (Ta=25°C)							Surge Current (mA)
	Vz	IzT	ZzT	ZzK	IzK	IR @ VR		
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
SMA5921B	6.8	55.1	2.5	200	1.0	2.5	5.2	221
SMA5922B	7.5	50.0	3.0	400	0.5	2.5	6.0	200
SMA5923B	8.2	45.7	3.5	400	0.5	2.5	6.5	183
SMA5924B	9.1	41.2	4.0	500	0.5	2.5	7.0	165
SMA5925B	10	37.5	4.5	500	0.25	2.5	8.0	150
SMA5926B	11	34.1	5.5	550	0.25	2.5	8.4	136
SMA5927B	12	31.2	6.5	550	0.25	0.5	9.1	125
SMA5928B	13	28.8	7.0	550	0.25	0.5	9.9	115
SMA5929B	15	25.0	9.0	600	0.25	0.5	11.4	100
SMA5930B	16	23.4	10	600	0.25	0.5	12.2	94
SMA5931B	18	20.8	12	650	0.25	0.5	13.7	83
SMA5932B	20	18.7	14	650	0.25	0.5	15.2	75
SMA5933B	22	17.0	17.5	650	0.25	0.5	16.7	68
SMA5934B	24	15.6	19	700	0.25	0.5	18.2	63
SMA5935B	27	13.9	23	700	0.25	0.5	20.6	56
SMA5936B	30	12.5	26	750	0.25	0.5	22.8	50
SMA5937B	33	11.4	33	800	0.25	0.5	25.1	45
SMA5938B	36	10.4	38	850	0.25	0.5	27.4	42
SMA5939B	39	9.6	45	900	0.25	0.5	29.7	38
SMA5940B	43	8.7	53	950	0.25	0.5	32.7	35
SMA5941B	47	8.0	67	1000	0.25	0.5	35.8	32
SMA5942B	51	7.3	70	1100	0.25	0.5	38.8	29
SMA5943B	56	6.7	86	1300	0.25	0.5	42.6	27
SMA5944B	62	6.0	100	1500	0.25	0.5	47.1	24
SMA5945B	68	5.5	120	1700	0.25	0.5	51.7	22

Suffix B for 5%

Typical Characteristics

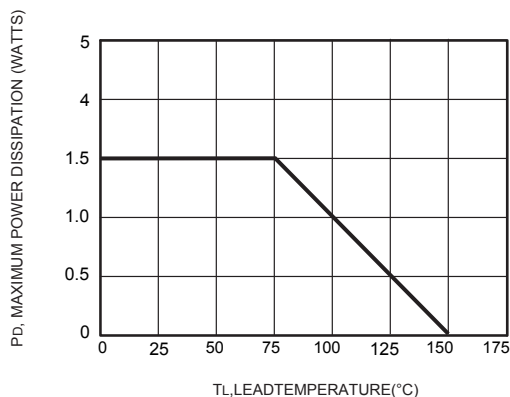


FIG 1. STEADY STATE POWER DERATING

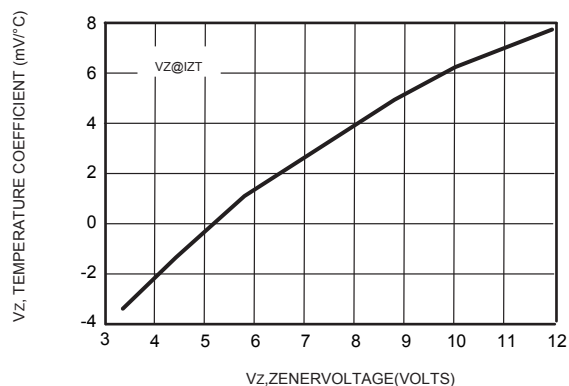


FIG 2. ZENER VOLTAGE-TO 12 VOLTS

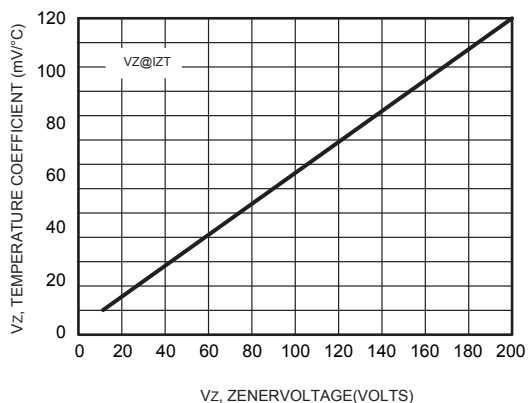


FIG 3. ZENER VOLTAGE-10 TO 12 VOLTS

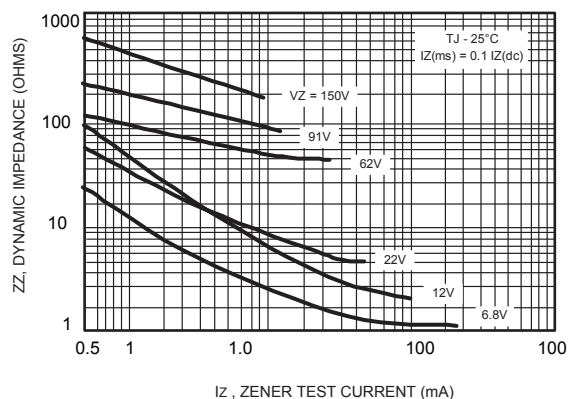


FIG 4. EFFECT OF ZENER CURRENT

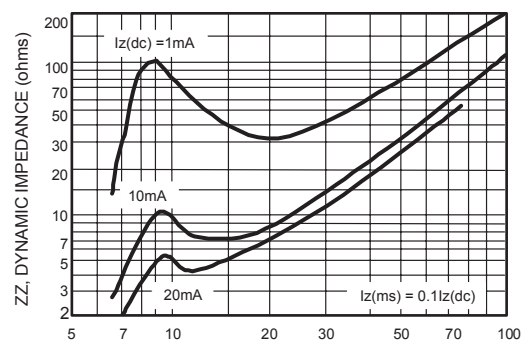


Fig 5. VZ = 6.8 THRU 10 VOLTS

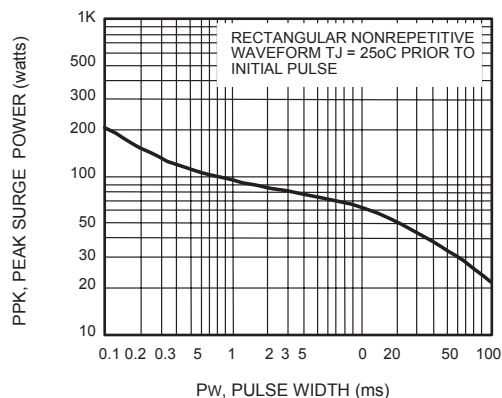


Fig 6. VZ=12 THRU 82 VOLTS

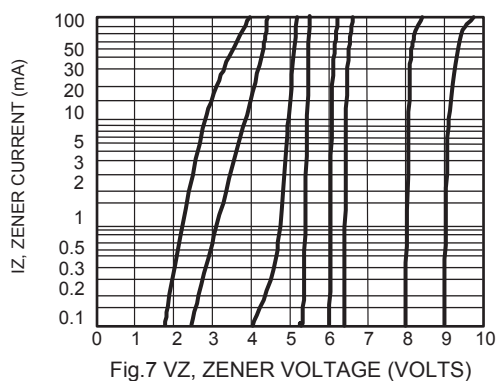


Fig.7 VZ, ZENER VOLTAGE (VOLTS)

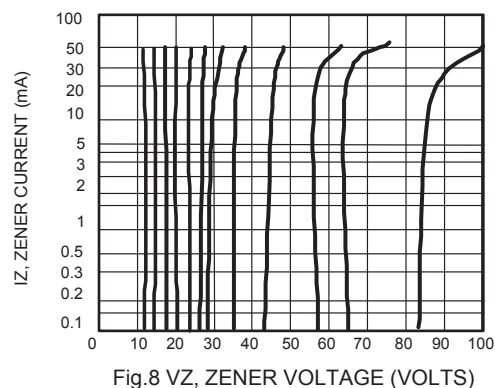


Fig.8 VZ, ZENER VOLTAGE (VOLTS)