



1.5 WATTS Surface Mount Zener Diode

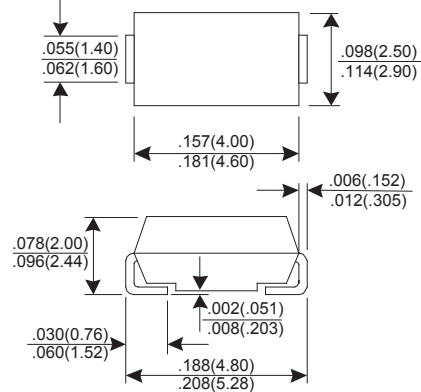
1SMA5921B~5945B

Description



SMA/DO-214AC

Mechanical Dimensions



Dimensions in inches and (millimeters)

Features

- ★ For surface mounted applications
- ★ 1.5 W power dissipation
- ★ Ideally suited for automated assembly processes

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Power Dissipation (Note 1)	P _D	1.5	W
Half sine-wave superimposed on rated load (Note 2) (JEDEC method)	I _{FSM}	10	A
Operating junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

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

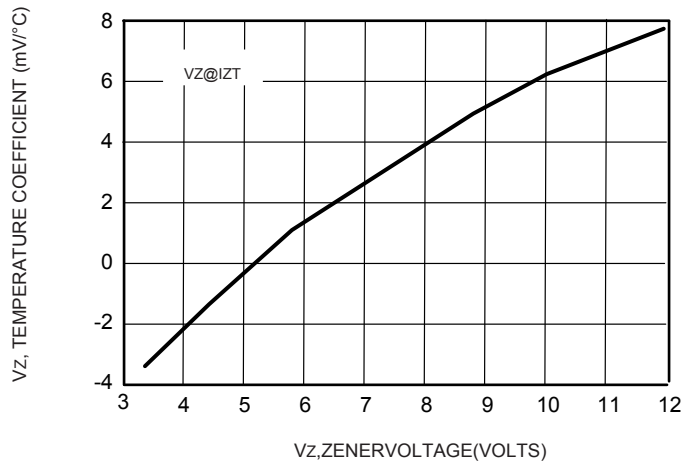
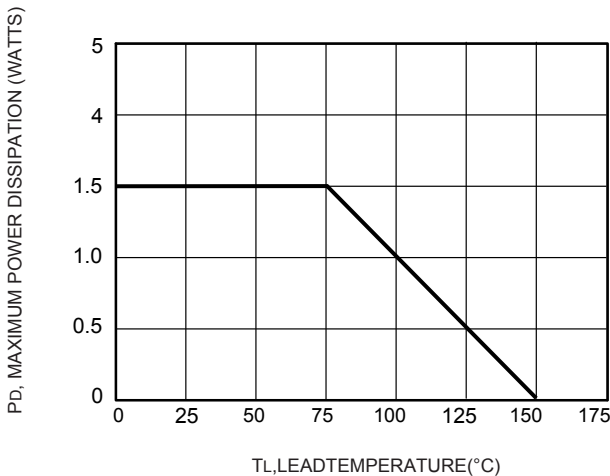
1SMA5921B THRU SMA5945B

Part No.	Electrical Characteristic (Ta=25°C)							Surge Current (mA)
	Vz (V)	IzT (mA)	ZzT (Ohm)	ZzK (Ohm)	IzK (mA)	IR(uA) Max.		
						VR(V)		
1SMA5921B	6.8	55.1	2.5	200	1.0	2.5	5.2	221
1SMA5922B	7.5	50.0	3.0	400	0.5	2.5	6.0	200
1SMA5923B	8.2	45.7	3.5	400	0.5	2.5	6.5	183
1SMA5924B	9.1	41.2	4.0	500	0.5	2.5	7.0	165
1SMA5925B	10	37.5	4.5	500	0.25	2.5	8.0	150
1SMA5926B	11	34.1	5.5	550	0.25	2.5	8.4	136
1SMA5927B	12	31.2	6.5	550	0.25	0.5	9.1	125
1SMA5928B	13	28.8	7.0	550	0.25	0.5	9.9	115
1SMA5929B	15	25.0	9.0	600	0.25	0.5	11.4	100
1SMA5930B	16	23.4	10	600	0.25	0.5	12.2	94
1SMA5931B	18	20.8	12	650	0.25	0.5	13.7	83
1SMA5932B	20	18.7	14	650	0.25	0.5	15.2	75
1SMA5933B	22	17.0	17.5	650	0.25	0.5	16.7	68
1SMA5934B	24	15.6	19	700	0.25	0.5	18.2	63
1SMA5935B	27	13.9	23	700	0.25	0.5	20.6	56
1SMA5936B	30	12.5	26	750	0.25	0.5	22.8	50
1SMA5937B	33	11.4	33	800	0.25	0.5	25.1	45
1SMA5938B	36	10.4	38	850	0.25	0.5	27.4	42
1SMA5939B	39	9.6	45	900	0.25	0.5	29.7	38
1SMA5940B	43	8.7	53	950	0.25	0.5	32.7	35
1SMA5941B	47	8.0	67	1000	0.25	0.5	35.8	32
1SMA5942B	51	7.3	70	1100	0.25	0.5	38.8	29
1SMA5943B	56	6.7	86	1300	0.25	0.5	42.6	27
1SMA5944B	62	6.0	100	1500	0.25	0.5	47.1	24
1SMA5945B	68	5.5	120	1700	0.25	0.5	51.7	22

Suffix B for 5%, Suffix "A" for 10%

FIG 1. STEADY STATE POWERDERATING

FIG 2. ZENER VOLTAGE-TO 12 VOLTS



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FIG 3. ZENER VOLTAGE-10 TO 12 VOLTS

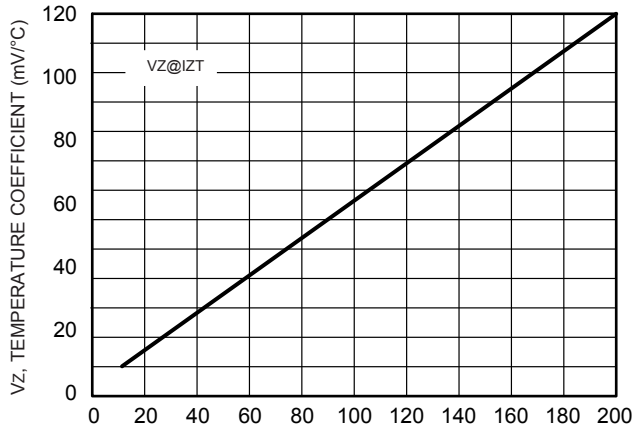


FIG 4. EFFECT OF ZENER CURRENT

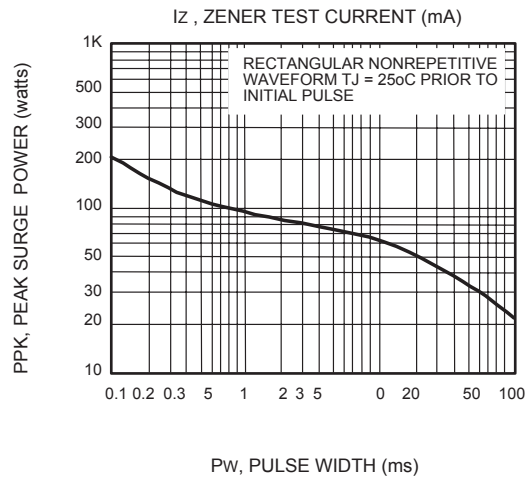
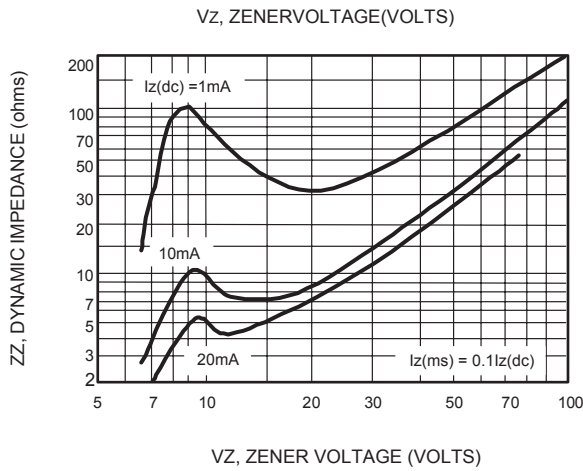
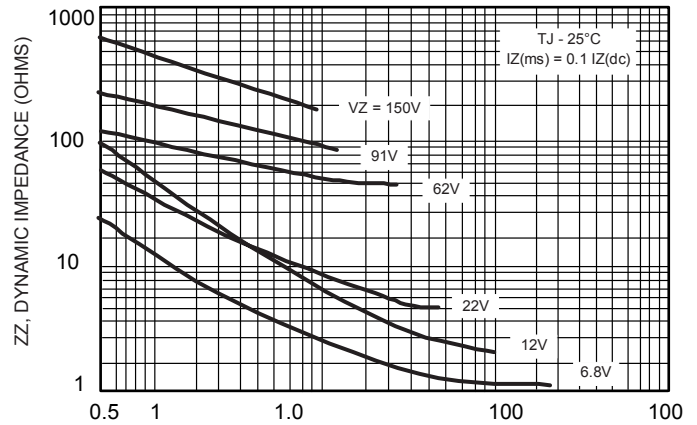


Fig 5. VZ = 6.8 THRU 10VOLTS

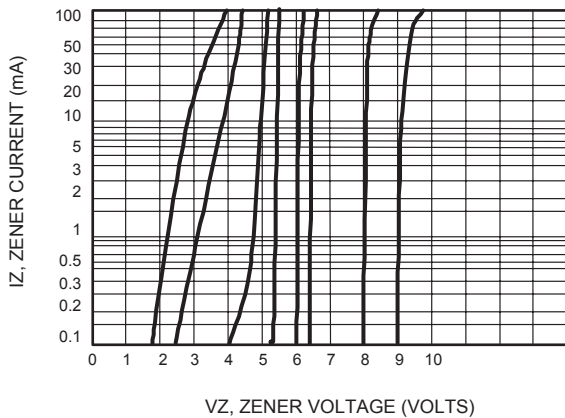


Fig 6. VZ=12 THRU 82 VOLTS

