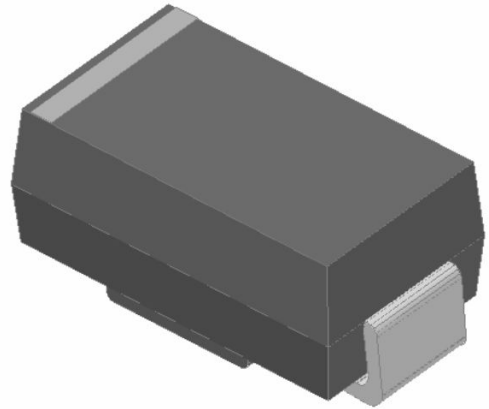


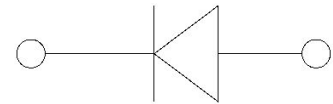
### ■ Features

- Silicon Planar Power Zener Diodes for use in stabilizing and clipping circuits with high power rating. Standard Zener voltage tolerance is 10%. Other tolerances available upon request.



### Mechanical Data

- ◇ Case: Molded plastic over passivated junction
- ◇ Terminals: Pure tin plated lead free, solderable per MIL-STD-750, Method 2025
- ◇ Polarity: Color Band denotes positive end (cathode)
- ◇ Standard packaging: 12mm tape (EIA-481)
- ◇ Weight: 0.002 ounces, 0.04 gram



### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

#### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation (Note A) Derate above 75 °C	$P_D$	2 24	Watts mW/°C
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note B)	$I_{FSM}$	15	Amps
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	°C

#### NOTES:

A. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

## Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise noted

Type No. (Note 1.)	Nominal Zener Voltage Vz @ I <sub>ZT</sub> volts (Note 2.)	Test current I <sub>ZT</sub> mA	Maximum Zener Impedance (Note 3.)			Leakage Current		Maximum Zener Current I <sub>ZM</sub> Madc	Surge Current @ T <sub>A</sub> = 25 °C I <sub>r</sub> - mA (Note 4.)
			Z <sub>ZT</sub> @ I <sub>ZT</sub> Ohms	Z <sub>ZK</sub> @ I <sub>ZK</sub> Ohms	I <sub>ZK</sub> mA	I <sub>R</sub> V <sub>R</sub> µg A Max @ Volts			
2EZ11	11.0	45.5	4.0	700	0.25	1.0	8.4	166	1.82
2EZ12	12.0	41.5	4.5	700	0.25	1.0	9.1	152	1.66
2EZ13	13.0	38.5	5.0	700	0.25	0.5	9.9	138	1.54
2EZ14	14.0	35.7	5.5	700	0.25	0.5	10.6	130	1.43
2EZ15	15.0	33.4	7.0	700	0.25	0.5	11.4	122	1.33
2EZ16	16.0	31.2	8.0	700	0.25	0.5	12.2	114	1.25
2EZ17	17.0	29.4	9.0	750	0.25	0.5	13.0	107	1.18
2EZ18	18.0	27.8	10.0	750	0.25	0.5	13.7	100	1.11
2EZ19	19.0	26.3	11.0	750	0.25	0.5	14.4	95	1.05
2EZ20	20.0	25.0	11.0	750	0.25	0.5	15.2	90	1.00
2EZ22	22.0	22.8	12.0	750	0.25	0.5	16.7	82	0.91
2EZ24	24.0	20.8	13.0	750	0.25	0.5	18.2	76	0.83
2EZ27	27.0	18.5	18.0	750	0.25	0.5	20.6	68	0.74
2EZ30	30.0	16.6	20.0	1000	0.25	0.5	22.5	60	0.67
2EZ33	33.0	15.1	23.0	1000	0.25	0.5	25.1	55	0.61
2EZ36	36.0	13.9	25.0	1000	0.25	0.5	27.4	50	0.56
2EZ39	39.0	12.8	30.0	1000	0.25	0.5	29.7	47	0.51
2EZ43	43.0	11.6	35.0	1500	0.25	0.5	32.7	43	0.45
2EZ47	47.0	10.6	40.0	1500	0.25	0.5	35.8	39	0.42
2EZ51	51.0	9.8	48.0	1500	0.25	0.5	38.8	36	0.39
2EZ56	56.0	9.0	55.0	2000	0.25	0.5	42.6	32	0.36
2EZ62	62.0	8.1	60.0	2000	0.25	0.5	47.1	29	0.32
2EZ68	68.0	7.4	75.0	2000	0.25	0.5	51.7	27	0.29
2EZ75	75.0	6.7	90.0	2000	0.25	0.5	56.0	24	0.27
2EZ82	82.0	6.1	100.0	3000	0.25	0.5	62.2	22	0.24
2EZ91	91.0	5.5	125.0	3000	0.25	0.5	69.2	20	0.22
2EZ100	100.0	5.0	175.0	3000	0.25	0.5	76.0	18	0.20
2EZ110	110.0	4.5	250.0	4000	0.25	0.5	83.6	17	0.18
2EZ120	120.0	4.2	325.0	4500	0.25	0.5	91.2	15	0.16
2EZ130	130.0	3.8	400.0	5000	0.25	0.5	98.8	14	0.15
2EZ140	140.0	3.6	500.0	5500	0.25	0.5	106.4	13	0.14
2EZ150	150.0	3.3	575.0	6000	0.25	0.5	114.0	12	0.13
2EZ160	160.0	3.1	650.0	6500	0.25	0.5	121.6	11	0.12
2EZ170	170.0	2.9	675.0	7000	0.25	0.5	130.4	11	0.12
2EZ180	180.0	2.8	725.0	7000	0.25	0.5	136.8	10	0.11
2EZ190	190.0	2.6	825.0	8000	0.25	0.5	144.8	10	0.10
2EZ200	200.0	2.5	900.0	8000	0.25	0.5	152.0	9	0.10

## RATINGS AND CHARACTERISTIC CURVES

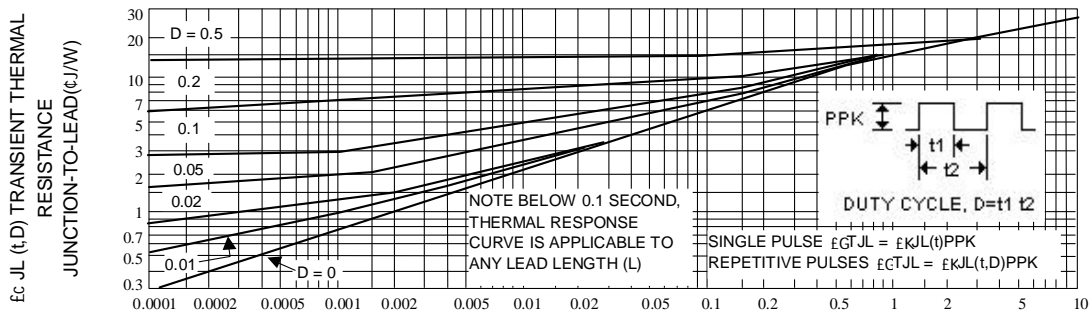


Fig. 2-TYPICAL THERMAL RESPONSE L,

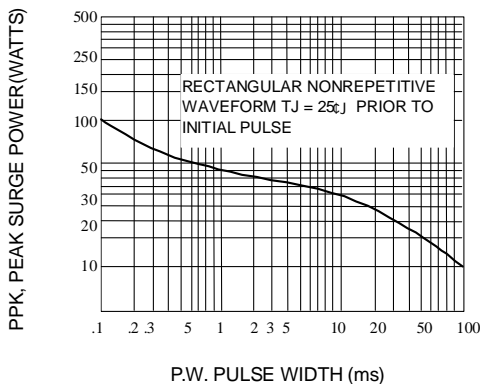


Fig. 3-MAXIMUM SURGE POWER

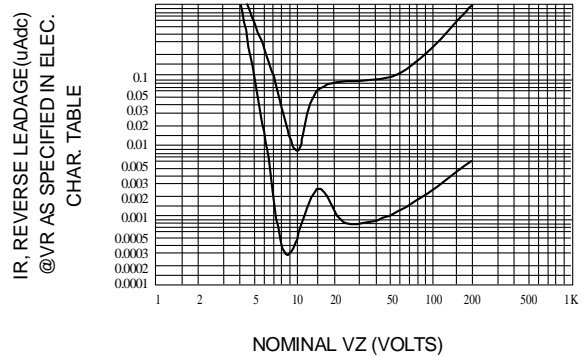


Fig. 4-TYPICAL REVERSE LEAKAGE

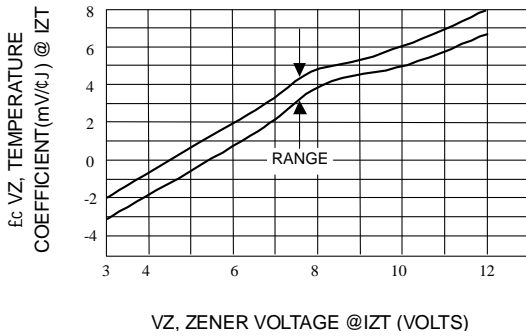


Fig. 5-UNITS TO 12 VOLTS

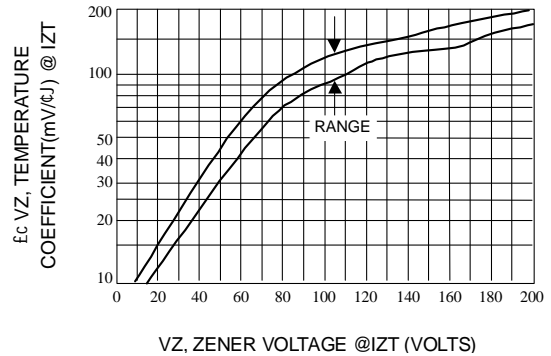


Fig. 6-UNITS 10 TO 200 VOLTS

## RATINGS AND CHARACTERISTIC CURVES

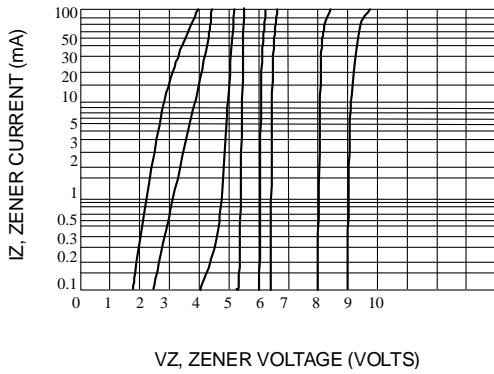


Fig. 7-VZ = 3.9 THRU 10 VOLTS

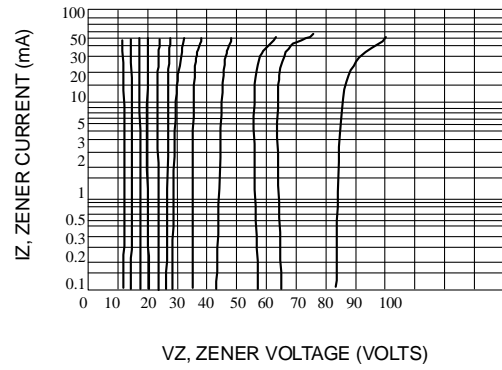


Fig. 8-VZ = 12 THRU 82 VOLTS

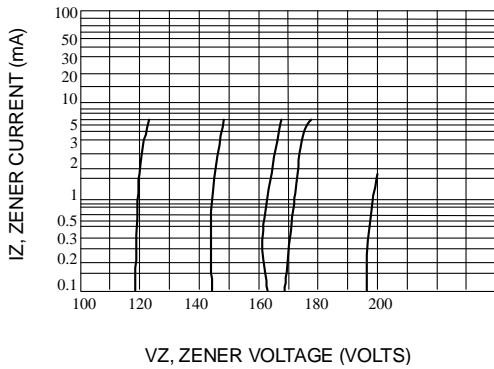


Fig. 9-VZ = 100 THRU 200 VOLTS

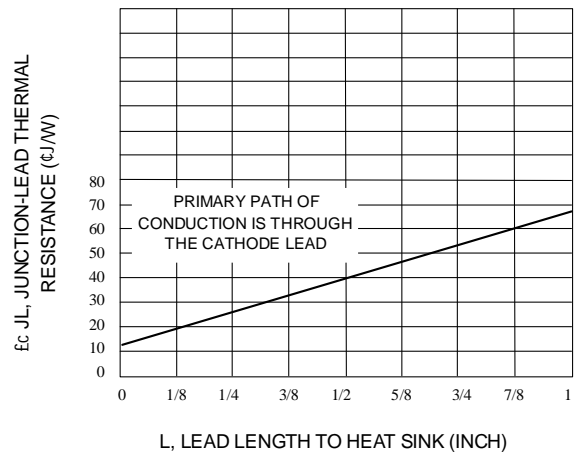
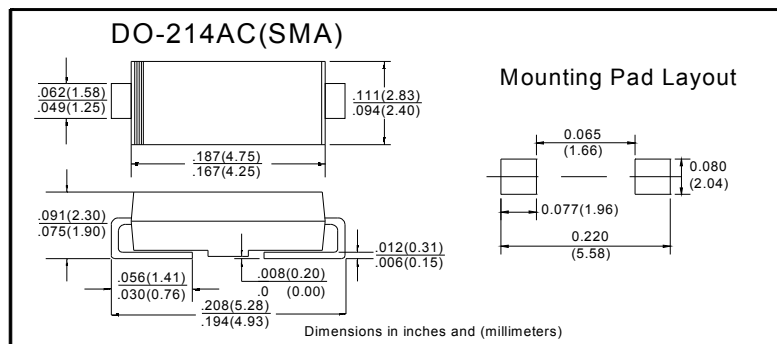


Fig. 10-TYPICAL THERMAL RESISTANCE

### Ordering Information (Example)

PREFERRED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SMA2EZ series	SMA	5000	10000	80000	13" reel

### Outline Dimensions



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