

SMA2EZ5.1D5~SMA2EZ75D5

ZENER DIODES

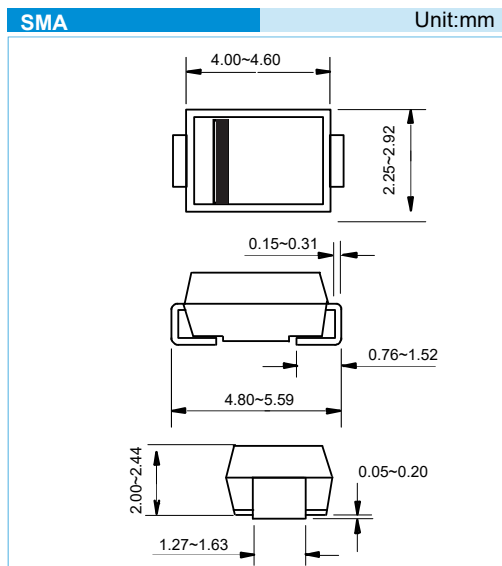
VOLTAGE 5.1 to 75 Volt **POWER** 2.0 Watt

FEATURES

- Excellent clamping capability
- Glass Passivated Junction
- Low Profile Package
- Low Zener Impedance
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 200\text{mA}$	V_F	1.5	V
Power Dissipation	P_d	2.0	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	63	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

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ELECTRICAL CHARACTERISTICS @25°C

Type No. (Note 1.)	Nominal Zener Voltage V _Z @I _{ZT} volts (Note 2.)	Test current I _{ZT} mA	Maximum Zener Impedance (Note 3)			Leakage Current		Maximum Zener Current I _{ZM} m A
			Z _{zT} @ I _{ZT}	Z _{zK} @ I _{ZK}	I _{ZK}	I _R	V _R	
			Ohms	Ohms	mA	uA Max	Volts	
SMA2EZ5.1D5	5.1	98	3.5	600	1	5.0	1.0	356
SMA2EZ5.6D5	5.6	89.5	2.5	500	1	5.0	2.0	324
SMA2EZ6.2D5	6.2	80.5	1.5	700	1	5.0	3.0	292
SMA2EZ6.8D5	6.8	73.5	2.0	700	1	5.0	4.0	266
SMA2EZ7.5D5	7.5	66.5	2.0	700	0.5	5.0	5.0	242
SMA2EZ8.2D5	8.2	61	2.3	700	0.5	5.0	6.0	220
SMA2EZ9.1D5	9.1	55	2.5	700	0.5	3.0	7.0	200
SMA2EZ10D5	10	50	3.5	700	0.25	3.0	7.6	182
SMA2EZ11D5	11	45.5	4.0	700	0.25	1.0	8.4	166
SMA2EZ12D5	12	41.5	4.5	700	0.25	1.0	9.1	152
SMA2EZ13D5	13	38.5	5.0	700	0.25	0.5	9.9	138
SMA2EZ14D5	14	35.7	5.5	700	0.25	0.5	10.6	130
SMA2EZ15D5	15	33.4	7.0	700	0.25	0.5	11.4	122
SMA2EZ16D5	16	31.2	8.0	700	0.25	0.5	12.2	114
SMA2EZ17D5	17	29.4	9.0	750	0.25	0.5	13.0	107
SMA2EZ18D5	18	27.8	10	750	0.25	0.5	13.7	100
SMA2EZ19D5	19	26.3	11	750	0.25	0.5	14.4	95
SMA2EZ20D5	20	25	11	750	0.25	0.5	15.2	90
SMA2EZ22D5	22	22.8	12	750	0.25	0.5	16.7	82
SMA2EZ24D5	24	20.8	13	750	0.25	0.5	18.2	76
SMA2EZ27D5	27	18.5	18	750	0.25	0.5	20.6	68
SMA2EZ30D5	30	16.6	20	1000	0.25	0.5	22.5	60
SMA2EZ33D5	33	15.1	23	1000	0.25	0.5	25.1	55
SMA2EZ36D5	36	13.9	25	1000	0.25	0.5	27.4	50
SMA2EZ39D5	39	12.8	30	1000	0.25	0.5	29.7	47
SMA2EZ43D5	43	11.6	35	1500	0.25	0.5	32.7	43
SMA2EZ47D5	47	10.6	40	1500	0.25	0.5	35.8	39
SMA2EZ51D5	51	9.8	48	1500	0.25	0.5	38.8	36
SMA2EZ56D5	56	9.0	55	2000	0.25	0.5	42.6	32
SMA2EZ62D5	62	8.1	60	2000	0.25	0.5	47.1	29
SMA2EZ68D5	68	7.4	75	2000	0.25	0.5	51.7	27
SMA2EZ75D5	75	6.7	90	2000	0.25	0.5	56.0	24

Notes:

1. TOLERANCES - Suffix indicates 5% tolerance any other tolerance will be considered as a special device.
2. ZENER VOLTAGE (V_Z) MEASUREMENT - guarantees the zener voltage when measured at 40 ms from the diode body, and an ambient temperature of 25
3. ZENER IMPEDANCE (Z_Z) DERIVATION - The zener impedance is derived from the 60 cycle ac voltage,

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RATING AND CHARACTERISTIC CURVES

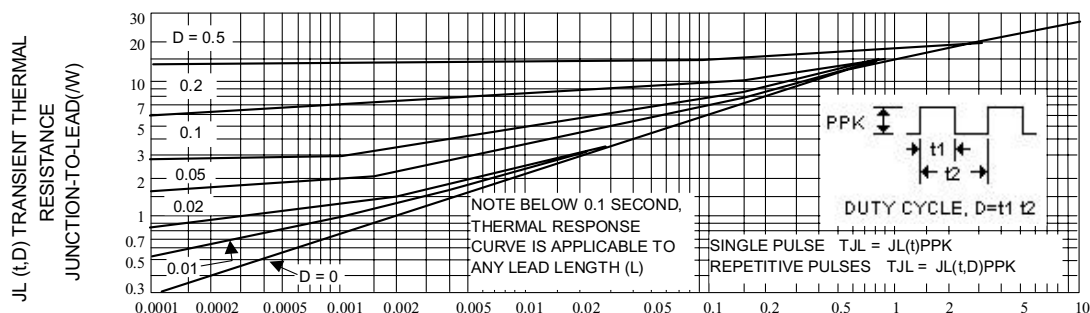


Fig. 1-TYPICAL THERMAL RESPONSE

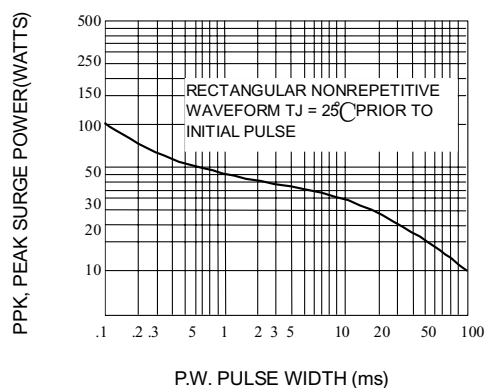


Fig. 2-MAXIMUM SURGE POWER

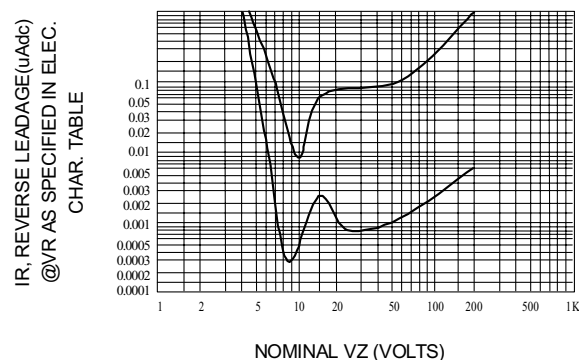


Fig. 3-TYPICAL REVERSE LEAKAGE

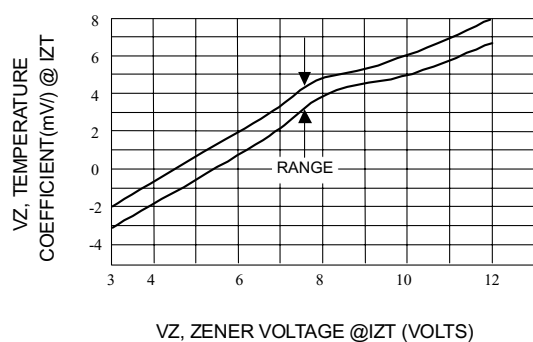


Fig. 4-UNITS 5.1 TO 12 VOLTS

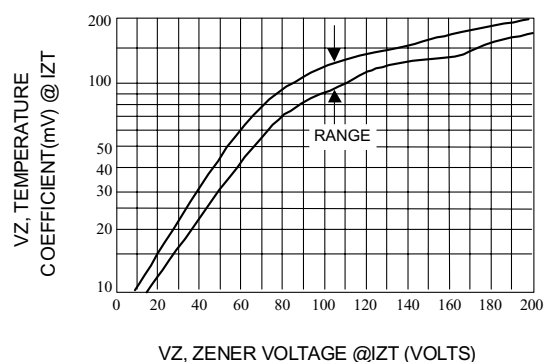


Fig. 5-UNITS 10 TO 200 VOLTS

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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
SMA2EZ5.1D5~SMA2EZ75D5	SMA	13 Inch	5000