Micro Commercial Components

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SMA2EZ10D5HE3 THRU SMA2EZ75D5HE3

2 W Glass Passivated Junction Silicon Zener Diode 10-75 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Glass Passivated Junction
- Excellent Clamping Capability
- Built-in Strain Relief
- Low Inductance
- Halogen free
- AEC-Q101 Qualified

Mechanical Data

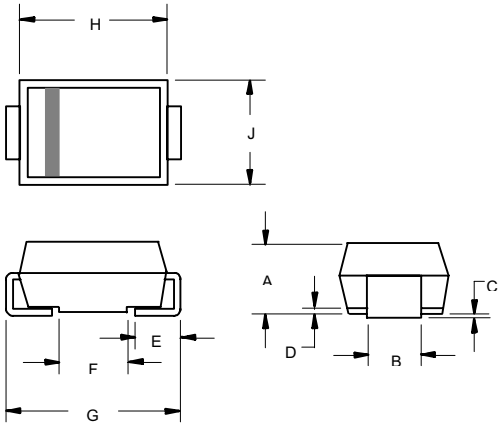
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- TERMINALS : Solder plated, solderable per MIL-STD-750, method 2026
- POLARITY : Color band denotes positive end (cathode)

Maximum Ratings @ 25°C Unless Otherwise Specified

Steady Power Dissipation (Note 2) Derate above 75°C	P_D	2 36	Watts mW/°C
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note 3)	I_{FSM}	15	Amps
Operating And Storage Temperature Range	T_J, T_{STG}	-55°C to +150°C	

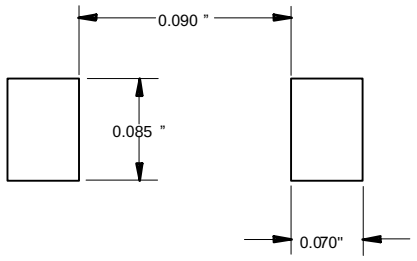
NOTES:
1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Mounted on 5.0mm²(.013mm thick) land areas.
3. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

DO-214AC
(SMA) (LEAD FRAME)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT



SMA2EZ10D5HE3 THRU SMA2EZ75D5HE3

ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)V_F=1.5V max,I_F=200mA for all types.

Type No. (Note 1.)	Nominal Zener Voltage Vz @I_{ZT} Volts (Note 2.)	Test Current I_{ZT} mA	Maximum Zener Impedance (Note 3)		Leakage Current			Maximum Zener Current I_{ZM} mA	Surge Current @TA=25 I_{ZSM}-A (Note 4.)	Device Marking
			Z_{ZT} @ I_{ZT} Ohms	Z_{ZK} @ I_{ZK} Ohms	I_{ZK} mA	I_R uA Max	V_R Volts			
SMA2EZ10D5HE3	10	50	3.5	700	0.25	3	7.6	182	2.0	2E10/2C10
SMA2EZ11D5HE3	11	45.5	4	700	0.25	1	8.4	166	1.82	2E11/2C11
SMA2EZ12D5HE3	12	41.5	4.5	700	0.25	1	9.1	152	1.66	2E12/2C12
SMA2EZ13D5HE3	13	38.5	5	700	0.25	0.5	9.9	138	1.54	2E13/2C13
SMA2EZ14D5HE3	14	35.7	5.5	700	0.25	0.5	10.6	130	1.43	2E14/2C14
SMA2EZ15D5HE3	15	33.4	7	700	0.25	0.5	11.4	122	1.33	2E15/2C15
SMA2EZ16D5HE3	16	31.2	8	700	0.25	0.5	12.2	114	1.25	2E16/2C16
SMA2EZ17D5HE3	17	29.4	9	750	0.25	0.5	13	107	1.18	2E17/2C17
SMA2EZ18D5HE3	18	27.8	10	750	0.25	0.5	13.7	100	1.11	2E18/2C18
SMA2EZ19D5HE3	19	26.3	11	750	0.25	0.5	14.4	95	1.05	2E19/2C19
SMA2EZ20D5HE3	20	25	11	750	0.25	0.5	15.2	90	1	2E20/2C20
SMA2EZ22D5HE3	22	22.8	12	750	0.25	0.5	16.7	82	0.91	2E22/2C22
SMA2EZ24D5HE3	24	20.8	13	750	0.25	0.5	18.2	76	0.83	2E24/2C24
SMA2EZ27D5HE3	27	18.5	18	750	0.25	0.5	20.6	68	0.74	2E27/2C27
SMA2EZ30D5HE3	30	16.6	20	1000	0.25	0.5	22.5	60	0.67	2E30/2C30
SMA2EZ33D5HE3	33	15.1	23	1000	0.25	0.5	25.1	55	0.61	2E33/2C33
SMA2EZ36D5HE3	36	13.9	25	1000	0.25	0.5	27.4	50	0.56	2E36/2C36
SMA2EZ39D5HE3	39	12.8	30	1000	0.25	0.5	29.7	47	0.51	2E39/2C39
SMA2EZ43D5HE3	43	11.6	35	1500	0.25	0.5	32.7	43	0.45	2E43/2C43
SMA2EZ47D5HE3	47	10.6	40	1500	0.25	0.5	35.8	39	0.42	2E47/2C47
SMA2EZ51D5HE3	51	9.8	48	1500	0.25	0.5	38.8	36	0.39	2E51/2C51
SMA2EZ56D5HE3	56	9	55	2000	0.25	0.5	42.6	32	0.36	2E56/2C56
SMA2EZ62D5HE3	62	8.1	60	2000	0.25	0.5	47.1	29	0.32	2E62/2C62
SMA2EZ68D5HE3	68	7.4	75	2000	0.25	0.5	51.7	27	0.29	2E68/2C68
SMA2EZ75D5HE3	75	6.7	90	2000	0.25	0.5	56	24	0.27	2E75/2C75

Notes:

1. TOLERANCES - Suffix indicates 5% tolerance any other tolerance will be considered as a special device.
2. ZENER VOLTAGE (Vz) MEASUREMENT - guarantees the zener voltage when measured at 40 ms from the diode body, and an ambient temperature of 25 centigrade degrees.
3. ZENER IMPEDANCE (Zz) DERIVATION - The zener impedance is derived from the 60 cycle ac voltage, which results when an ac current having an rms falue equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}
4. SURGE CURRENT (Izsm) NON-REPETITIVE - The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, IZT, per JEDEC standards, however, actual device capability is as described in Figure 3.

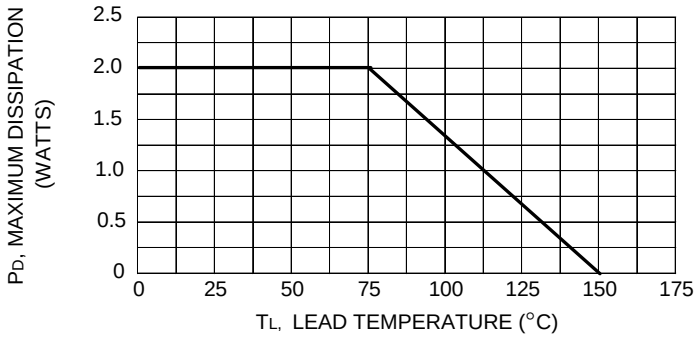


Fig. 1-POWER TEMPERATURE DERATING CURVE

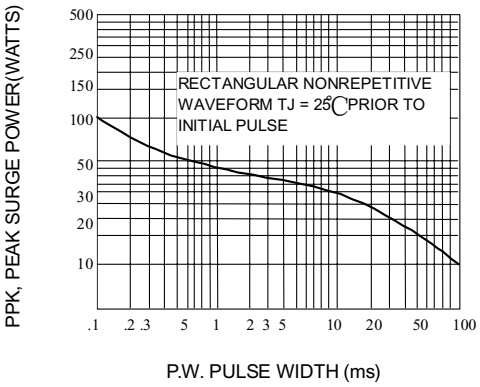


Fig. 2-MAXIMUM SURGE POWER

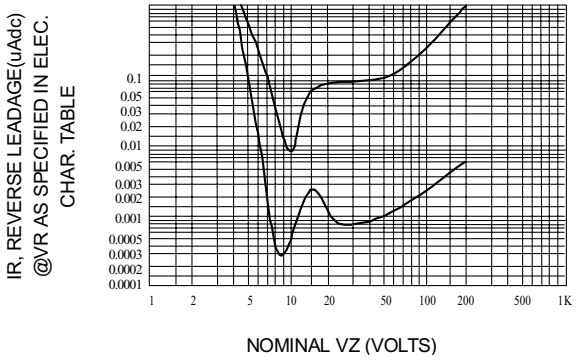


Fig. 3-TYPICAL REVERSE LEAKAGE

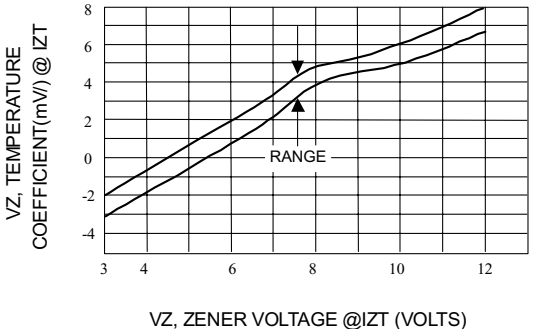


Fig. 4-UNITS 10 TO 12 VOLTS

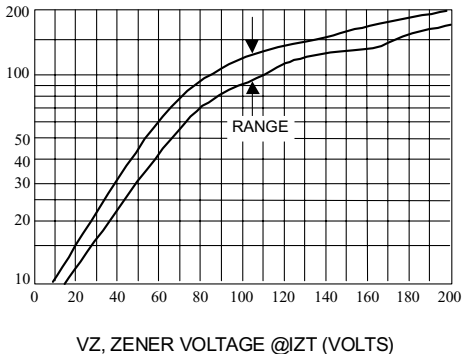


Fig. 5-UNITS 10 TO 200 VOLTS

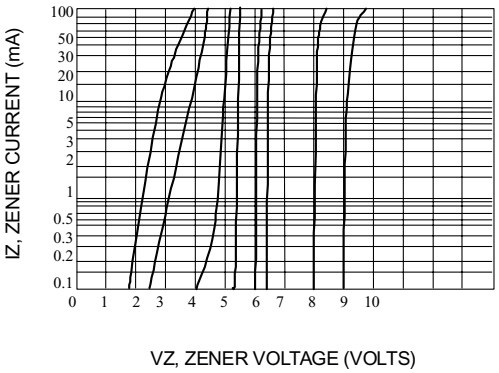


Fig. 6-VZ = 10 VOLTS

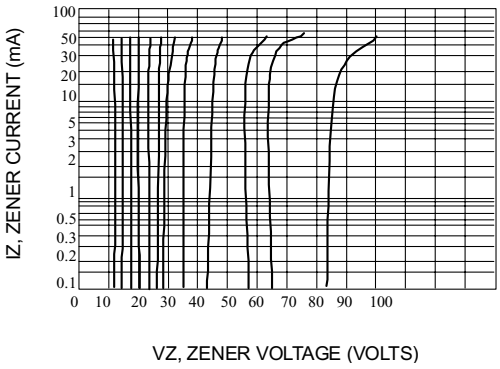


Fig. 7-VZ = 12 THRU 82 VOLTS

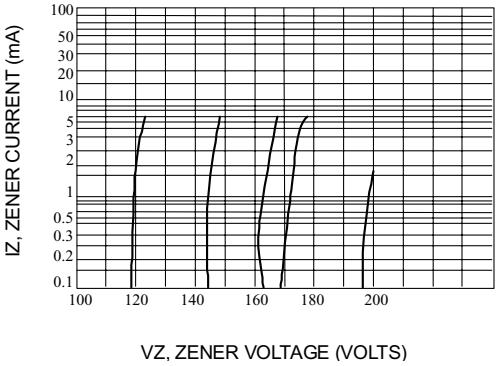


Fig. 8-VZ = 100 THRU 200 VOLTS

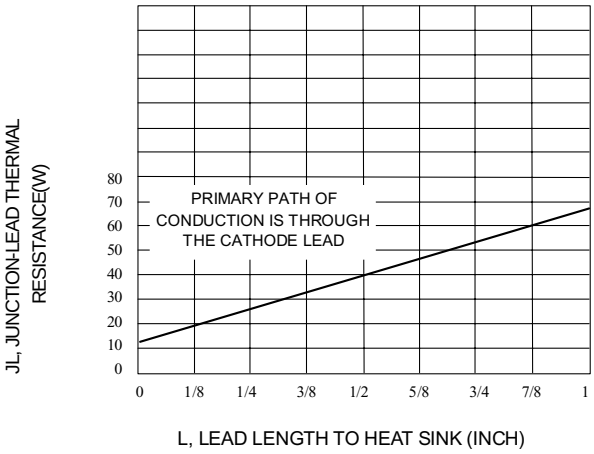


Fig. 9-TYPICAL THERMAL RESISTANCE

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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 7.5Kpcs/Reel

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