



Micro Commercial Components
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3EZ11 THRU 3EZ39

Features

- Low Profile Package
- Built-in Strain Relief
- Glass Passivated Junction
- Low Inductance
- Excellent Clamping Capability

Mechanical Data

- CASE: JEDEC DO-15 Molded plastic over passivated junction
- WEIGHT: 0.015 ounce, 0.04 gram
- TERMINALS : Solder plated, solderable per MIL-STD-750, method 2026
- POLARITY : Color band denotes positive end (cathode)

Maximum Ratings @ 25°C Unless Otherwise Specified

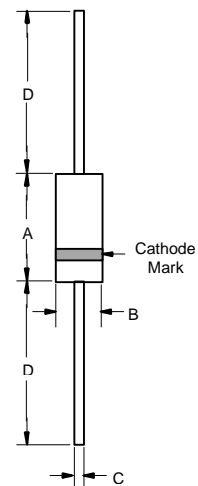
Peak Pulse Power Dissipation (Note A) Derate above 75°C	P_D	3 24	Watts mW/°C
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note B)	I_{FSM}	15	Amps
Operating And Storage Temperature Range	T_J, T_{STG}	-55°C to +150°C	

NOTES:

- A. Mounted on 5.0mm² (.013mm thick) land areas.
B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

3 W Glass Passivated Junction Silicon Zener Diode 11-39 Volts

DO-15



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	
C	0.028	0.034	0.71	0.86	
D	1.000	25.40	

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ELECTRICAL CHARACTERISTICS ($T_A=25\text{ }^{\circ}\text{C}$) unless otherwise noted) $V_F=1.2\text{ V max}$, $I_F=500\text{ mA}$ for all types

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} Madc	Surge Current @ $T_A = 25\text{ }^{\circ}\text{C}$ i_r - mA (Note 4.)
			Z_{ZT} @ I_{ZT} Ohms	Z_{ZK} @ I_{ZK} Ohms	I_{ZK} mA	I_R mA Max @	V_R Volts		
3EZ11	11	68	4	700	0.25	1	8.4	225	1.82
3EZ12	12	63	4.5	700	0.25	1	9.1	246	1.66
3EZ13	13	58	4.5	700	0.25	0.5	9.9	208	1.54
3EZ14	14	53	5	700	0.25	0.5	10.6	193	1.43
3EZ15	15	50	5.5	700	0.25	0.5	11.4	180	1.33
3EZ16	16	47	5.5	700	0.25	0.5	12.2	169	1.25
3EZ17	17	44	6	750	0.25	0.5	13	150	1.18
3EZ18	18	42	6	750	0.25	0.5	13.7	159	1.11
3EZ19	19	40	7	750	0.25	0.5	14.4	142	1.05
3EZ20	20	37	7	750	0.25	0.5	15.2	135	1
3EZ22	22	34	8	750	0.25	0.5	16.7	123	0.91
3EZ24	24	31	9	750	0.25	0.5	18.2	112	0.83
3EZ27	27	28	10	750	0.25	0.5	20.6	100	0.74
3EZ28	28	27	12	750	0.25	0.5	21	96	0.71
3EZ30	30	25	16	1000	0.25	0.5	22.5	90	0.67
3EZ33	33	23	20	1000	0.25	0.5	25.1	82	0.61
3EZ36	36	21	22	1000	0.25	0.5	27.4	75	0.56
3EZ39	39	19	28	1000	0.25	0.5	29.7	69	0.51

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 ± 10 ms from the diode body, and an ambient temperature of $25\text{ }^{\circ}\text{C}$ ($\pm 8\text{ }^{\circ}\text{C}$, $-2\text{ }^{\circ}\text{C}$).
3. ZENER IMPEDANCE (Z_Z) DERIVATION - The zener impedance is derived from the 60 cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .
4. SURGE CURRENT (I_r) 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, I_{ZT} , per JEDEC standards, however, actual device capability is as described in Figure 3.

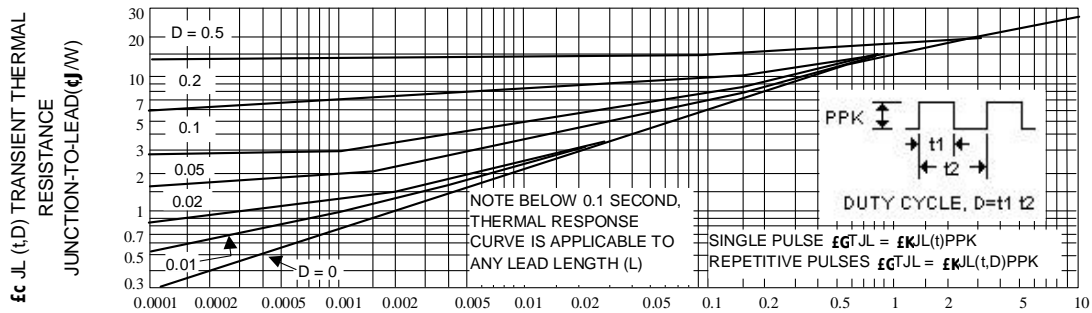


Fig. 2-TYPICAL THERMAL RESPONSE L,

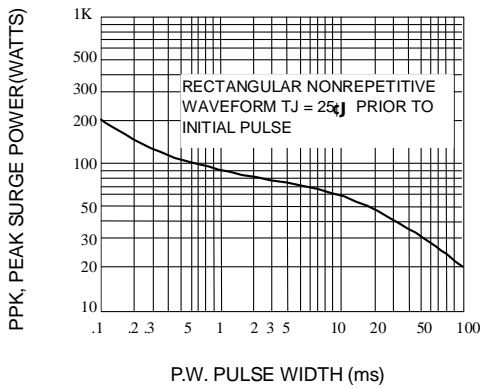


Fig. 3-MAXIMUM SURGE POWER

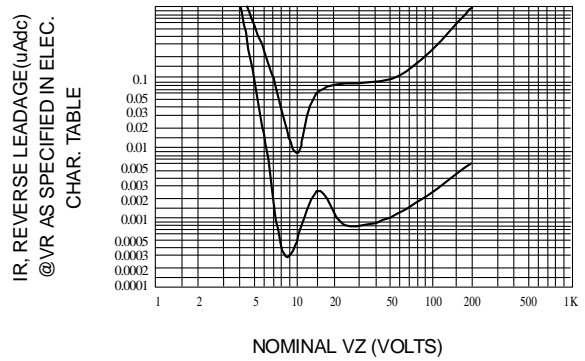


Fig. 4-TYPICAL REVERSE LEAKAGE

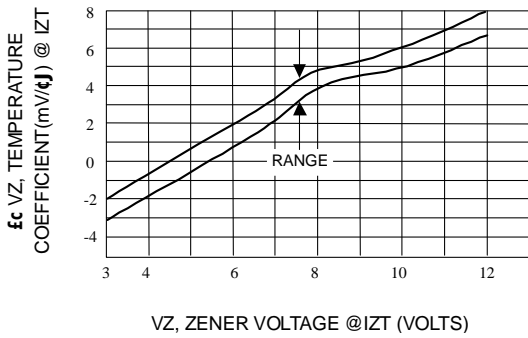


Fig. 5-UNITS TO 12 VOLTS

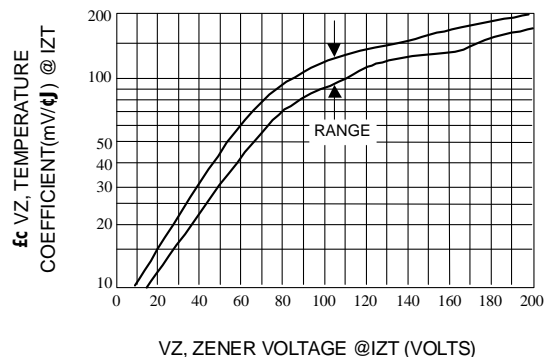


Fig. 6-UNITS 10 TO 200 VOLTS

RATING AND CHARACTERISTICS CURVES
3EZ11 THRU 3EZ39

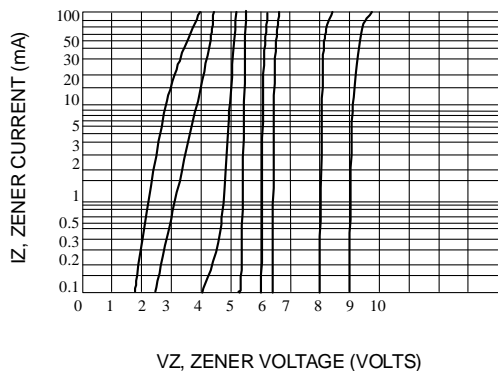


Fig. 7- $V_Z = 3.9$ THRU 10 VOLTS

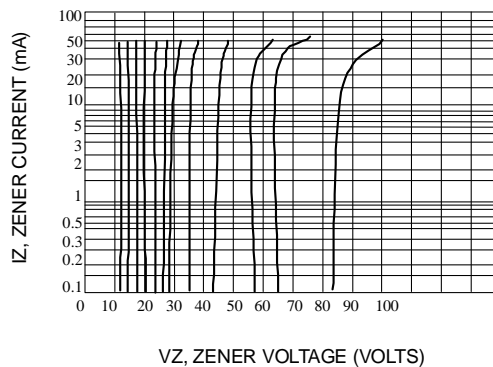


Fig. 8- $V_Z = 12$ THRU 82 VOLTS

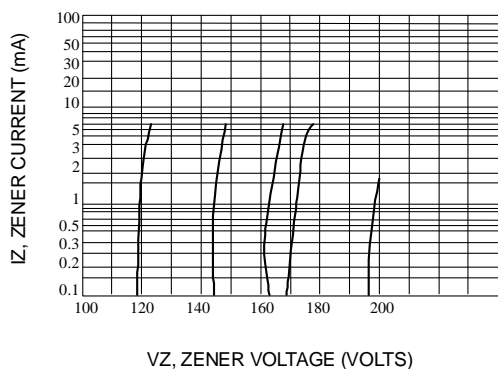


Fig. 9- $V_Z = 100$ THRU 200 VOLTS

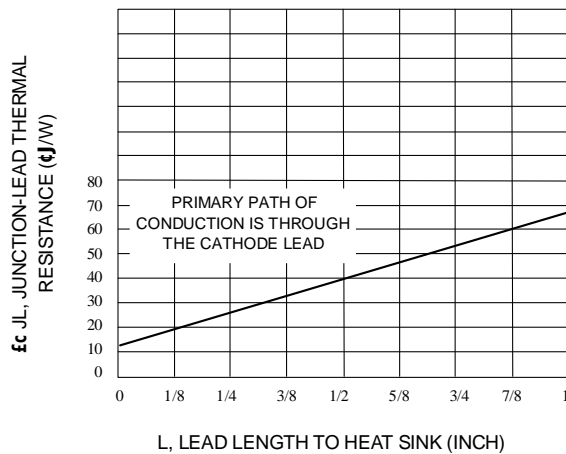


Fig. 10-TYPICAL THERMAL RESISTANCE