



**THE DATASHEET OF  
2EZ39D5-TP**





Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

2EZ5.1D5
THRU
2EZ75D5

Features

- Glass Passivation Junction
Lead Free Finish/RoHS Compliant (Note C) ("P" Suffix designates Compliant. See ordering information)
Excellent Clamping Capability
Halogen free available upon request by adding suffix "-HF"

2 W Glass Passivated
Junction Silicon
Zener Diode
5.1-75 Volts

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)

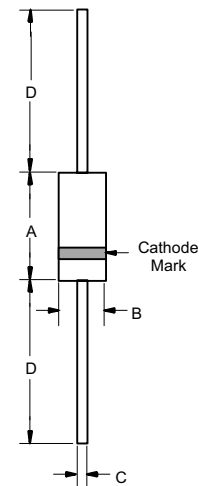
Maximum Ratings @ 25°C Unless Otherwise Specified

Table with 4 columns: Parameter, Symbol, Value, Units. Rows include Steady Power Dissipation (PD), Peak Forward Surge Current (IFSM), and Operating And Storage Temperature Range (TJ, TSTG).

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.
C. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

DO-41



DIMENSIONS table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Rows A, B, C, D.

**2EZ5.1D5 THRU 2EZ75D5**

 ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)  $V_F=1.2\text{ V max}$ ,  $I_F=200\text{ mA}$  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 $I_{ZM}$ m A
			$Z_{ZT} @ I_{ZT}$	$Z_{Zk} @ I_{Zk}$	$I_{Zk}$	$I_R$	$V_R$	
			Ohms	Ohms	mA	$\mu\text{A Max}$	Volts	
2EZ5.1D5	5.1	98	3.5	600	1	5.0	1.0	356
2EZ5.6D5	5.6	89.5	2.5	500	1	5.0	2.0	324
2EZ6.2D5	6.2	80.5	1.5	700	1	5.0	3.0	292
2EZ6.8D5	6.8	73.5	2.0	700	1	5.0	4.0	266
2EZ7.5D5	7.5	66.5	2.0	700	0.5	5.0	5.0	242
2EZ8.2D5	8.2	61	2.3	700	0.5	5.0	6.0	220
2EZ9.1D5	9.1	55	2.5	700	0.5	3.0	7.0	200
2EZ10D5	10	50	3.5	700	0.25	3.0	7.6	182
2EZ11D5	11	45.5	4.0	700	0.25	1.0	8.4	166
2EZ12D5	12	41.5	4.5	700	0.25	1.0	9.1	152
2EZ13D5	13	38.5	5.0	700	0.25	0.5	9.9	138
2EZ14D5	14	35.7	5.5	700	0.25	0.5	10.6	130
2EZ15D5	15	33.4	7.0	700	0.25	0.5	11.4	122
2EZ16D5	16	31.2	8.0	700	0.25	0.5	12.2	114
2EZ17D5	17	29.4	9.0	750	0.25	0.5	13.0	107
2EZ18D5	18	27.8	10	750	0.25	0.5	13.7	100
2EZ19D5	19	26.3	11	750	0.25	0.5	14.4	95
2EZ20D5	20	25	11	750	0.25	0.5	15.2	90
2EZ22D5	22	22.8	12	750	0.25	0.5	16.7	82
2EZ24D5	24	20.8	13	750	0.25	0.5	18.2	76
2EZ27D5	27	18.5	18	750	0.25	0.5	20.6	68
2EZ30D5	30	16.6	20	1000	0.25	0.5	22.5	60
2EZ33D5	33	15.1	23	1000	0.25	0.5	25.1	55
2EZ36D5	36	13.9	25	1000	0.25	0.5	27.4	50
2EZ39D5	39	12.8	30	1000	0.25	0.5	29.7	47
2EZ43D5	43	11.6	35	1500	0.25	0.5	32.7	43
2EZ47D5	47	10.6	40	1500	0.25	0.5	35.8	39
2EZ51D5	51	9.8	48	1500	0.25	0.5	38.8	36
2EZ56D5	56	9.0	55	2000	0.25	0.5	42.6	32
2EZ62D5	62	8.1	60	2000	0.25	0.5	47.1	29
2EZ68D5	68	7.4	75	2000	0.25	0.5	51.7	27
2EZ75D5	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, 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  $I_{ZK}$

RATING AND CHARACTERISTICS CURVES

2EZ5.1 D5 THRU 2EZ75D5



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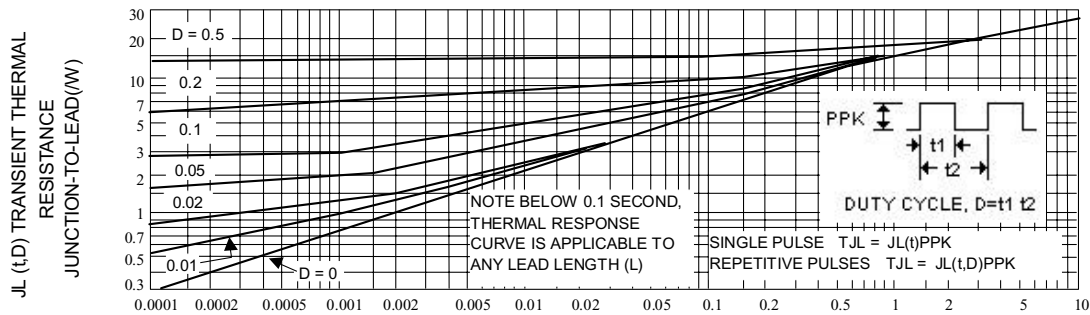


Fig. 1-TYPICAL THERMAL RESPONSE

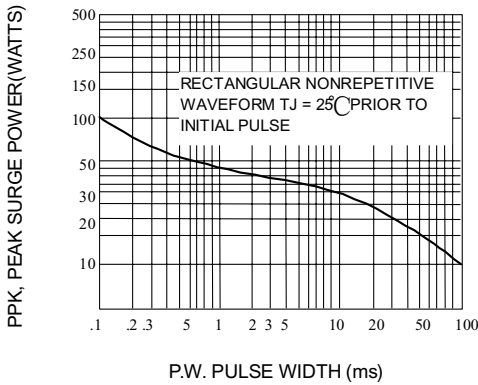


Fig. 2-MAXIMUM SURGE POWER

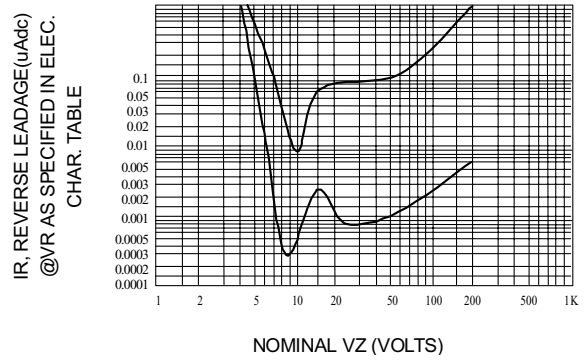


Fig. 3-TYPICAL REVERSE LEAKAGE

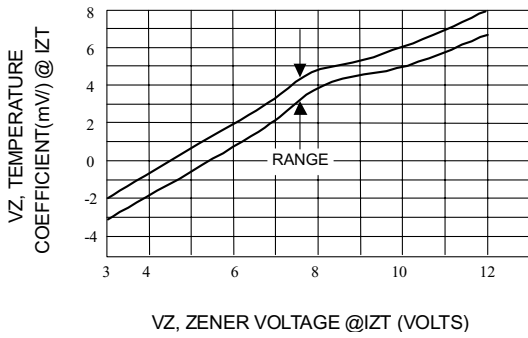


Fig. 4-UNITS 3.9 TO 12 VOLTS

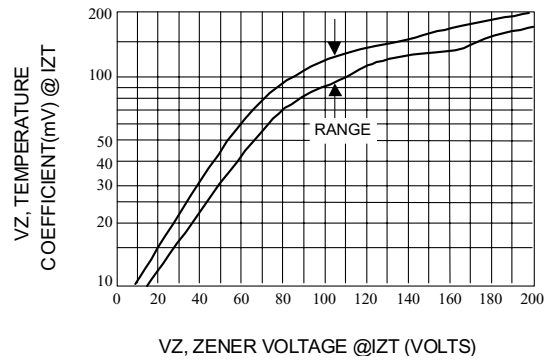


Fig. 5-UNITS 10 TO 200 VOLTS

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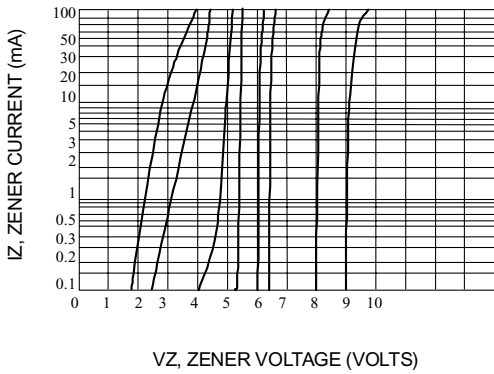


Fig. 6-V<sub>Z</sub> = 3.9 THRU 10 VOLTS

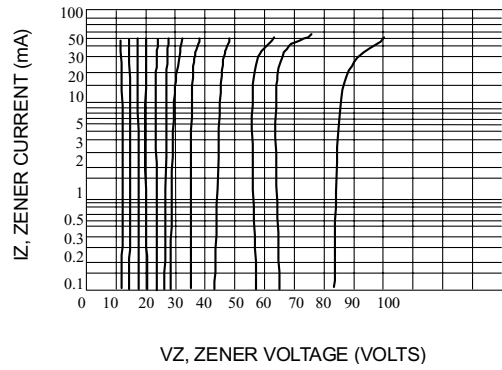


Fig. 7-V<sub>Z</sub> = 12 THRU 82 VOLTS

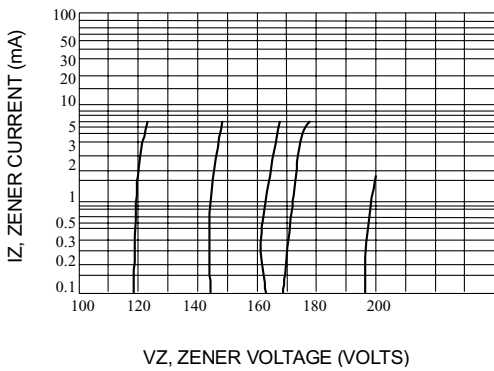


Fig. 8-V<sub>Z</sub> = 100 THRU 200 VOLTS

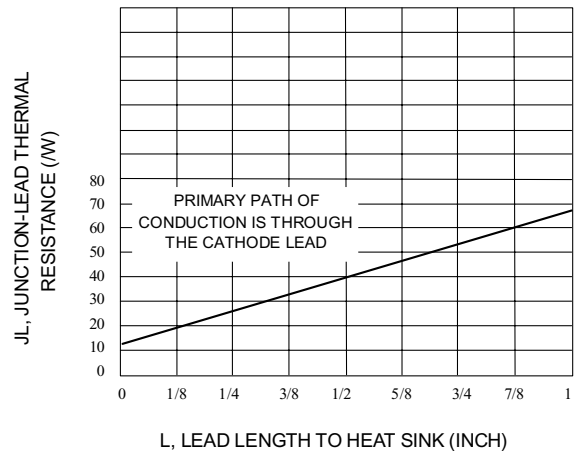


Fig. 9-TYPICAL THERMAL RESISTANCE

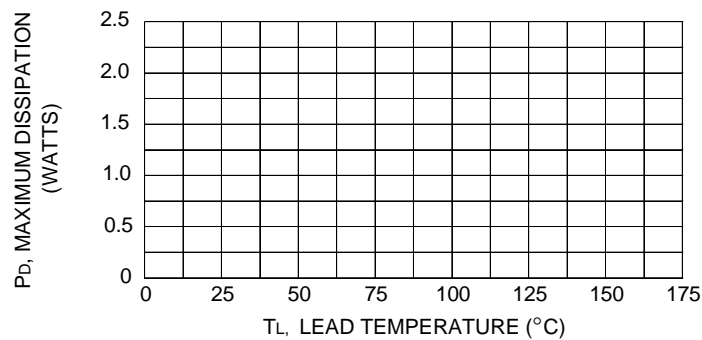


Fig. 10- POWER TEMPERATURE DERATING CURVE



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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