



Micro Commercial Components



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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"

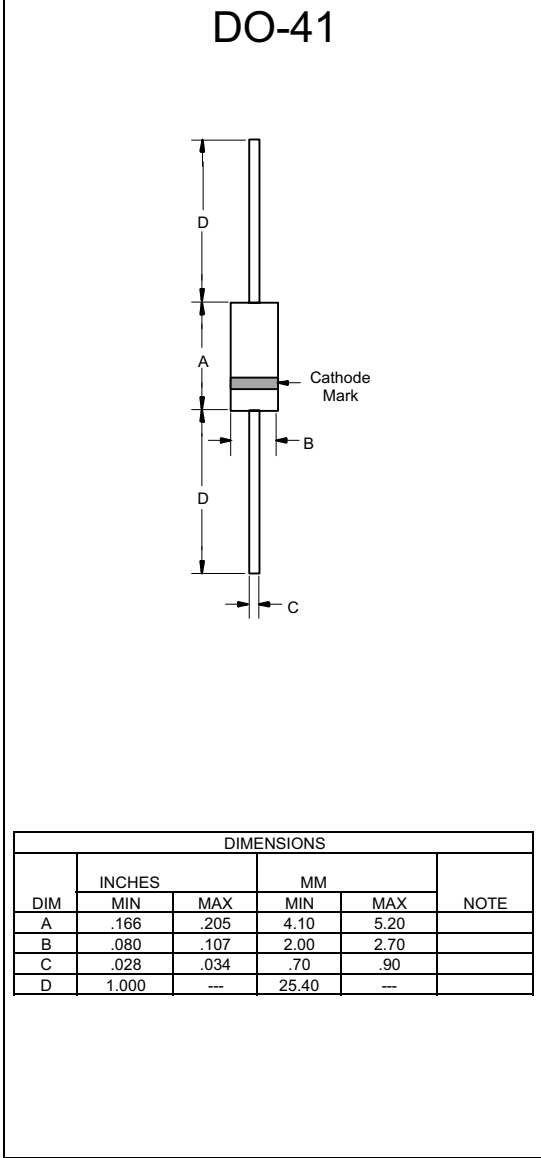
2 W Glass Passivated Junction Silicon Zener Diode 5.1-75 Volts

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

| | | | |
|---|---------------------------------------|----------------------------|------------------------|
| Peak Pulse Power Dissipation (Note A) Derate above 75°C | P_D | 2 26.7 | 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.
- C. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

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 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}

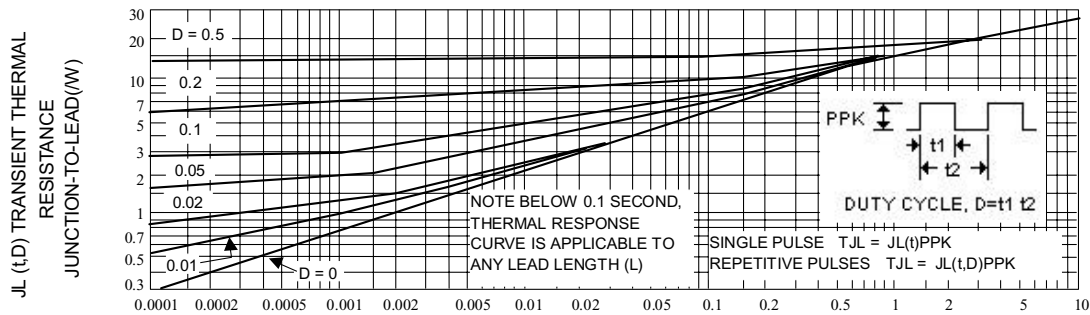


Fig. 2-TYPICAL THERMAL RESPONSE

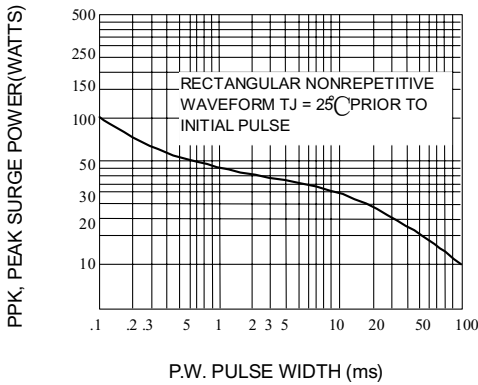


Fig. 3-MAXIMUM SURGE POWER

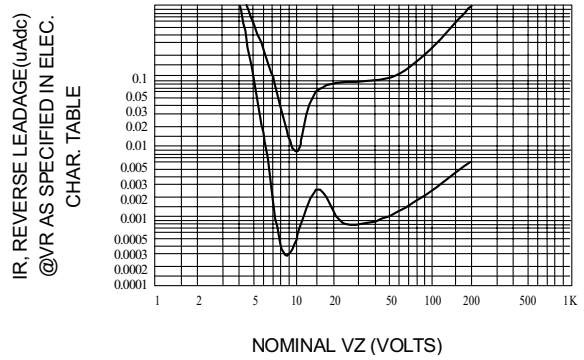


Fig. 4-TYPICAL REVERSE LEAKAGE

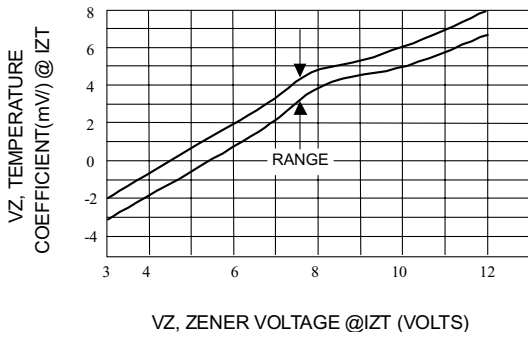


Fig. 5-UNITS 3.9 TO 12 VOLTS

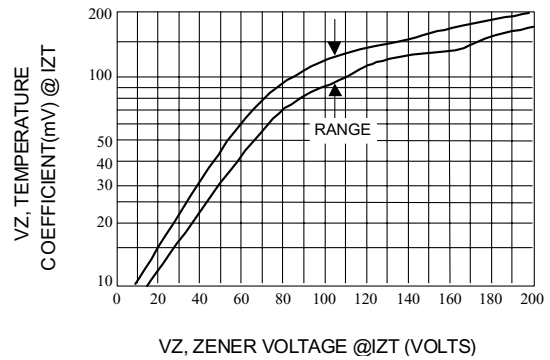


Fig. 6-UNITS 10 TO 200 VOLTS

RATING AND CHARACTERISTICS CURVES
2EZ5.1 D5 THRU 2EZ75D5

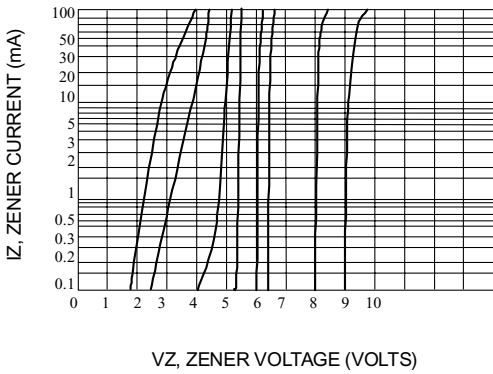


Fig. 7-VZ = 3.9 THRU 10 VOLTS

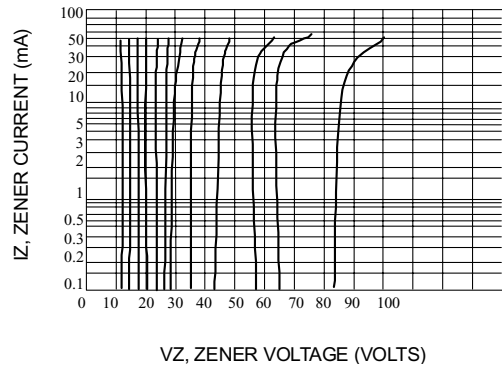


Fig. 8-VZ = 12 THRU 82 VOLTS

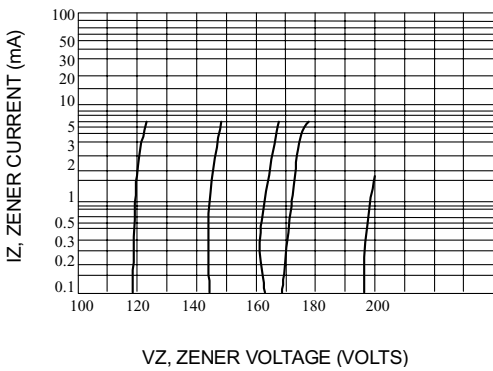


Fig. 9-VZ = 100 THRU 200 VOLTS

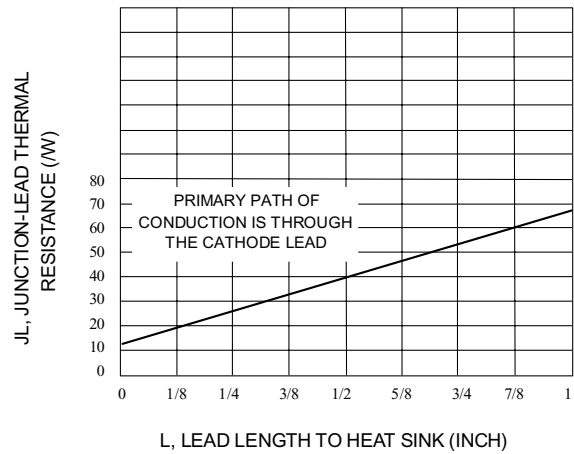


Fig. 10-TYPICAL THERMAL RESISTANCE

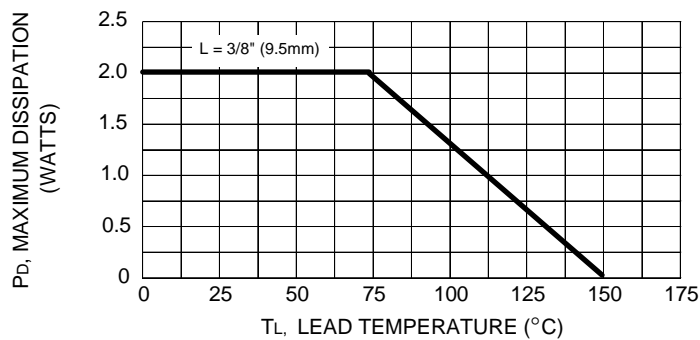


Fig. 11- POWER TEMPERATURE DERATING CURVE



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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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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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