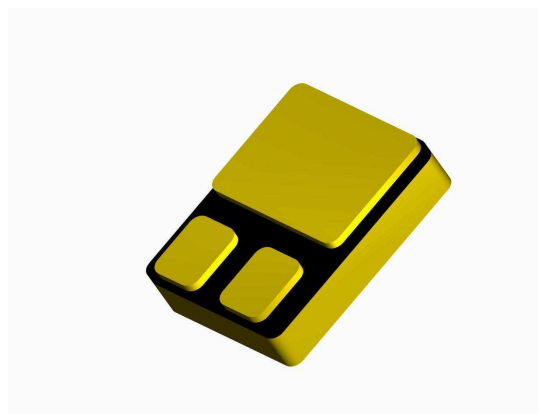


PACKAGE ILLUSTRATION

Hermetically Sealed Zener Diode for High Rel Applications.



SMD05

PIN OUTS

PIN 1 – Anode PIN 2 – Cathode PIN 3 – Anode

FEATURES:

- SCREENING OPTIONS AVAILABLE
- HIGH SURGE CURRENT RATING
- HERMETIC CERAMIC PACKAGE
- STANDARD TOLERANCE VALUES +/- 5%

ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

| | | |
|-----------|---------------------------------------|--|
| P_{TOT} | Power Dissipation | 8W |
| T_{OP} | Maximum Operating Ambient Temperature | -55°C to 175°C |
| T_{STG} | Storage Temperature Range | -65°C to 175°C |
| I_{SUR} | Maximum Surge Current | 28A |
| I_{ZM} | Maximum Continuous Current | 2A |

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

| Parameter | | Test Conditions | Min. | Typ. | Max. | Unit |
|--------------|--------------------------|---|------|------|------|-----------------------|
| V_Z | Nominal Zener Voltage | $I_{ZT} = 320\text{mA}$ | | 4.0 | | V |
| ΔV_Z | Voltage Regulation | (Note 1) | | | 0.80 | V |
| Z_Z | Maximum Zener Impedance | $Z_Z @ I_{ZT} (320\text{mA})$ | | | 11 | Ω |
| Z_{ZK} | Maximum Zener Impedance | $Z_{ZK} @ I_{ZK} = 1\text{mA}$ | | | 250 | Ω |
| I_R | Reverse Leakage Current | I_R at $V_R = 1\text{V}$ | | | 175 | μA |
| αV_Z | Maximum Temp Coefficient | $\alpha V_Z @ I_{ZT} (25^{\circ}\text{ to } 125^{\circ}\text{C})$ | | | 0.16 | %/ $^{\circ}\text{C}$ |

NOTE 1: Maximum voltage change ΔV_Z between 10% of I_{ZM} and 50% of I_{ZM}

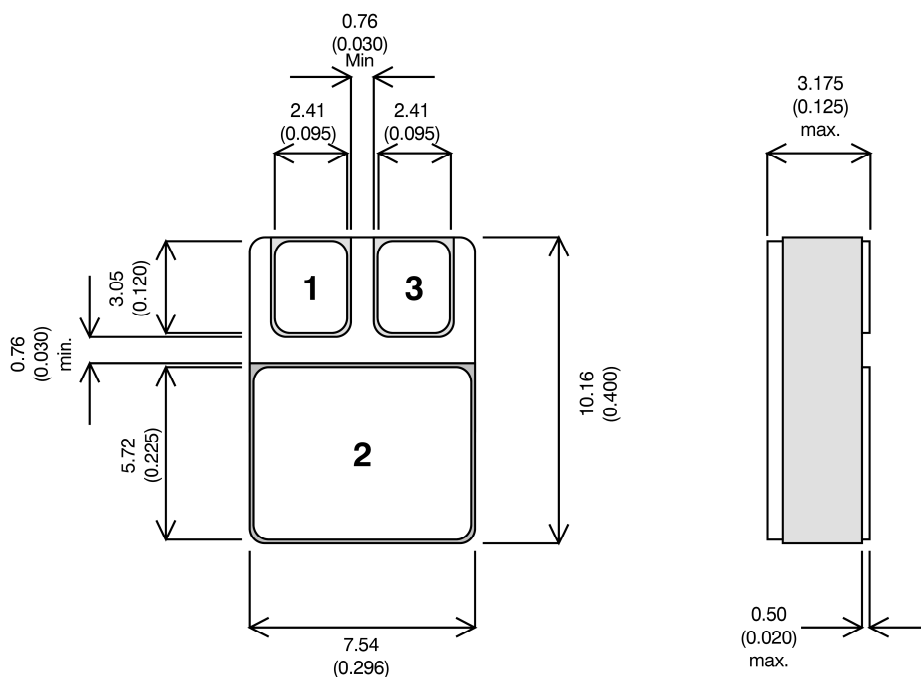
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Thermal Data ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|--|-----------------|------|------|------|----------------------|
| $R_{\theta \text{ j-case}}$ Thermal Resistance Junction-Case | | | | 2.0 | $^{\circ}\text{C/W}$ |

Mechanical Outline (underside view)

Semelab Aerospace Package Dimensions



Dimensions in mm (inches)

SMD05 (TO-276AA)