



Micro Commercial Components



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SMAZ5V1
THRU
SMAZ39

Features

- Halogen free available upon request by adding suffix "-HF"
1.0W Power Dissipation
High Surge Capability
Ideally Suited for Automatic Assembly
Standard Vz Tolerance is +/- 5%
Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

- Storage Temperature Range (Tstg): -65°C to +150°C
Operating Temperature Range (Ti): -65°C to +150°C

Table with 4 columns: Parameter, Symbol, Value, Units. Rows include Zener Current, Power Dissipation, Forward Voltage, Junction to Terminal, and Thermal resistance.

1 Watt
Zener Diode
5.1V - 39V Volts

DO-214AC
(SMAJ)(LEAD FRAME)

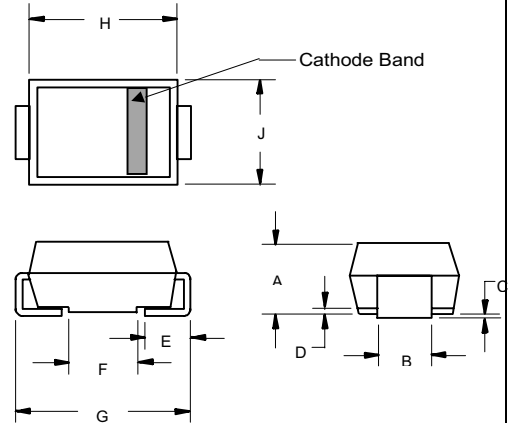
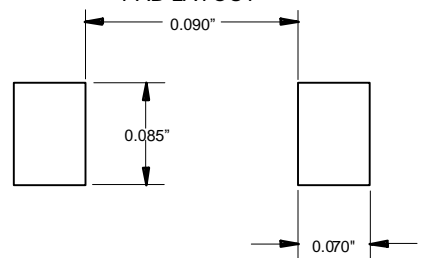


Table titled 'DIMENSIONS' with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. It lists dimensions A through J.

SUGGESTED SOLDER PAD LAYOUT



Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Part Number | Zener Voltage V_Z Voltages | | | Maximum Zener Impedance Z_{ZT} (OHMS) | | Maximum Zener Impedance Z_{ZK} (OHMS) | | Reverse Current I_R (Max) @ V_R | | I_{ZM} Max | Marking |
|-------------|------------------------------------|-------|-------|---|------|---|-----|---|------|--------------|---------|
| | Nom | Min | Max | I_{ZT} (mA) | Max | I_{ZK} (mA) | Max | μA | V | mA | |
| SMAZ5V1 | 5.10 | 4.84 | 5.40 | 100 | 5.0 | 1.0 | 500 | 2.5 | 1.0 | 196 | Z5V1 |
| SMAZ5V6 | 5.60 | 5.32 | 5.88 | 100 | 2.0 | 2.0 | 250 | 5.0 | 2.0 | 179 | Z5V6 |
| SMAZ6V2 | 6.20 | 5.89 | 6.51 | 100 | 2.0 | 2.0 | 200 | 5.0 | 3.0 | 161 | Z6V2 |
| SMAZ6V8 | 6.80 | 6.46 | 7.14 | 100 | 2.0 | 1.0 | 200 | 5.0 | 4.0 | 147 | Z6V8 |
| SMAZ7V5 | 7.50 | 7.13 | 7.88 | 100 | 2.0 | 1.0 | 450 | 5.0 | 5.0 | 133 | Z7V5 |
| SMAZ8V2 | 8.20 | 7.79 | 8.61 | 100 | 2.0 | 1.0 | 200 | 5.0 | 6.0 | 122 | Z8V2 |
| SMAZ9V1 | 9.10 | 8.65 | 9.56 | 50 | 4.0 | 1.0 | 200 | 5.0 | 7.0 | 110 | Z9V1 |
| SMAZ10 | 10.00 | 9.50 | 10.50 | 50 | 4.0 | 1.0 | 200 | 1.0 | 7.6 | 100 | Z10 |
| SMAZ12 | 12.00 | 11.40 | 12.60 | 50 | 7.0 | 1.0 | 150 | 1.0 | 9.1 | 83 | Z12 |
| SMAZ15 | 15.00 | 14.25 | 15.75 | 50 | 10.0 | 1.0 | 150 | 1.0 | 11.4 | 67 | Z15 |
| SMAZ16 | 16.00 | 15.20 | 16.80 | 25 | 15.0 | 1.0 | 150 | 0.5 | 12.2 | 63 | Z16 |
| SMAZ18 | 18.00 | 17.10 | 18.90 | 25 | 15.0 | 1.0 | 150 | 0.5 | 13.7 | 56 | Z18 |
| SMAZ20 | 20.00 | 19.00 | 21.00 | 25 | 15.0 | 1.0 | 180 | 0.5 | 15.2 | 50 | Z20 |
| SMAZ22 | 22.00 | 20.90 | 23.10 | 25 | 15.0 | 1.0 | 180 | 0.5 | 16.7 | 45 | Z22 |
| SMAZ24 | 24.00 | 22.80 | 25.20 | 25 | 15.0 | 1.0 | 180 | 0.5 | 18.2 | 42 | Z24 |
| SMAZ27 | 27.00 | 25.65 | 28.35 | 25 | 15.0 | 1.0 | 200 | 0.5 | 20.5 | 37 | Z27 |
| SMAZ30 | 30.00 | 28.50 | 31.50 | 25 | 15.0 | 1.0 | 250 | 0.5 | 22.8 | 33 | Z30 |
| SMAZ33 | 33.00 | 31.35 | 34.65 | 25 | 15.0 | 1.0 | 300 | 0.5 | 25.1 | 30 | Z33 |
| SMAZ36 | 36.00 | 34.20 | 37.80 | 10 | 40.0 | 1.0 | 350 | 0.5 | 27.4 | 28 | Z36 |
| SMAZ39 | 39.00 | 37.05 | 40.95 | 10 | 40.0 | 1.0 | 450 | 0.5 | 29.6 | 26 | Z39 |

Notes1.Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

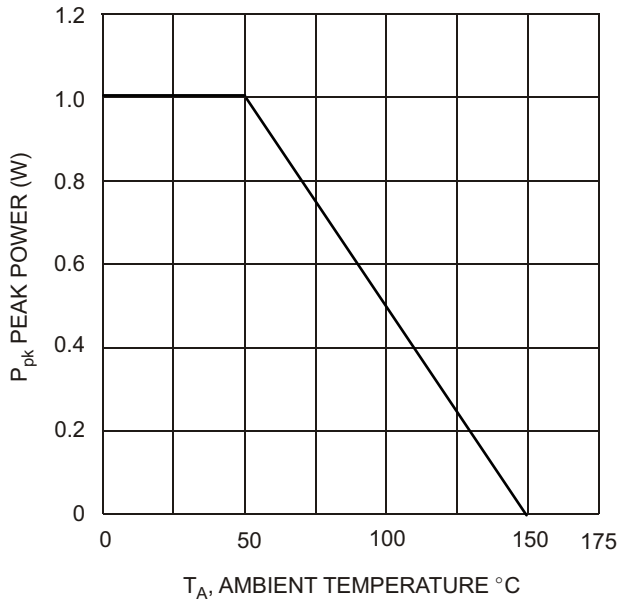


Fig. 1 Power Dissipation vs Ambient Temperature

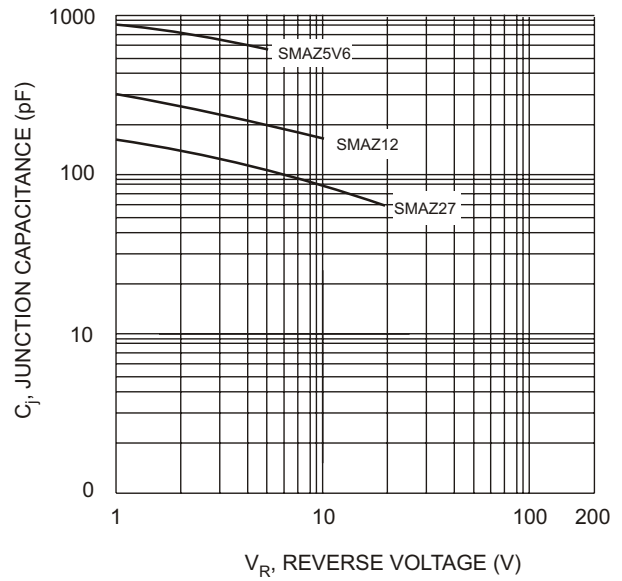


Fig. 2 Junction Capacitance vs Reverse Voltage

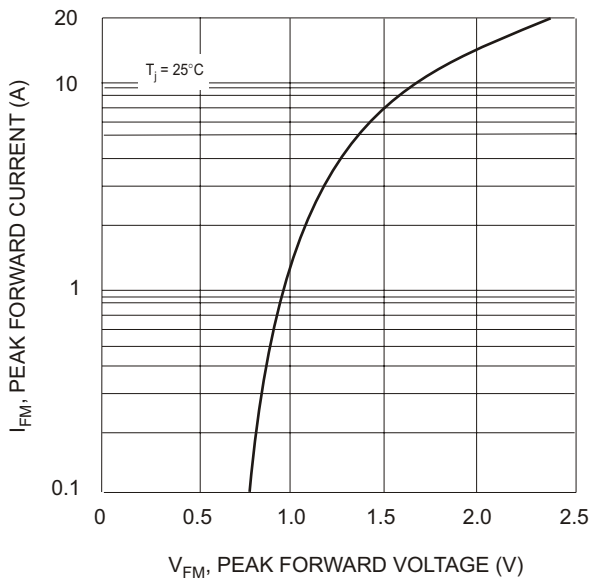


Fig. 3 Peak Forward Current vs Peak Forward Voltage

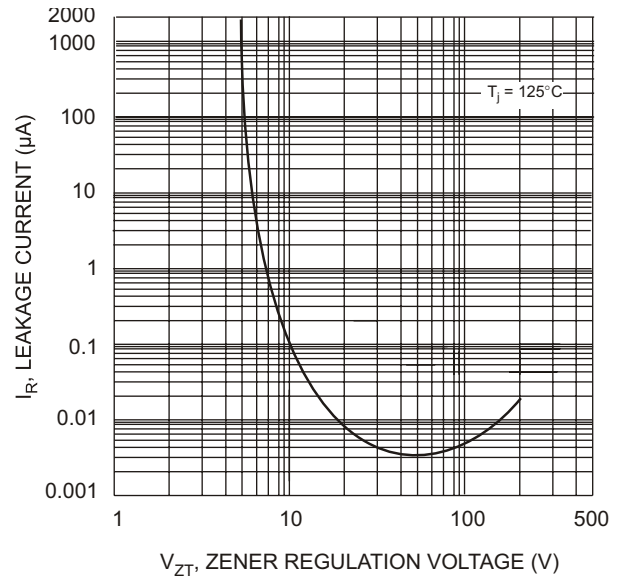


Fig. 4 Leakage Current vs Regulation Voltage

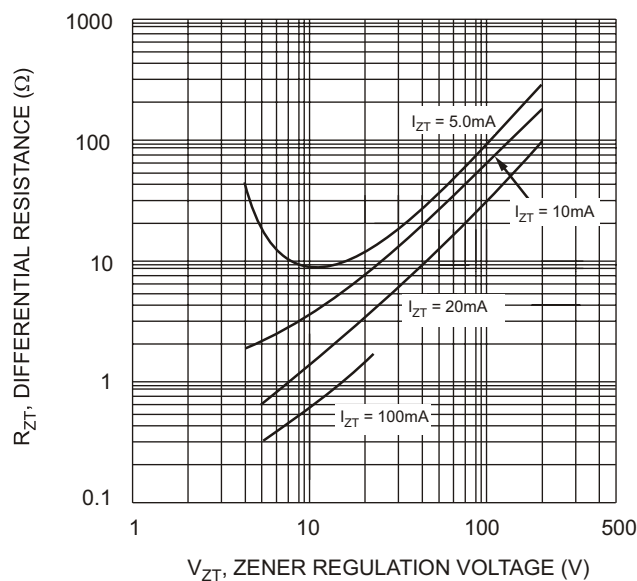


Fig. 5 Differential Resistance vs Regulation Voltage



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Ordering Information :

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

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

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