

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED


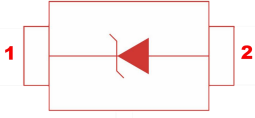

NRVB130T1G-MS

Product specification

FEATURES

- Guardring for Stress Protection
- Low Forward Voltage
- 125°C Operating Junction Temperature
- Epoxy Meets UL 94 V-0 @ 0.125 in
- Package Designed for Optimal Automated Board Assembly
- ESD Ratings: Machine Model, C;
Human Body Model, 3
- We declare that the material of product compliance with
- RoHS requirements and Halogen Free.

Reference News

| SOD-123 | PIN ASSIGNMENT | MARKING |
|--|--|--|
|  |  |  |

MAXIMUM RATINGS(Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|---|--------|------------|------|
| Maximum repetitive peak reverse voltage | VRRM | 30 | V |
| Working Peak Reverse Voltage | VRWM | | |
| Maximum DC blocking voltage | VR | | |
| Average Rectified Forward Current (Rated VR) TL = 65°C | IF(AV) | 1 | A |
| Non-Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions, Halfwave, Single Phase, 60 Hz) | IFSM | 5.5 | A |
| Thermal resistance (Note 1) | RθJA | 230 | °C/W |
| | RθJL | 108 | |
| Operating junction and storage temperature range | TJ | -65 ~ +125 | °C |
| Voltage Rate of Change (Rated VR) | dv/dt | 1000 | V/μs |

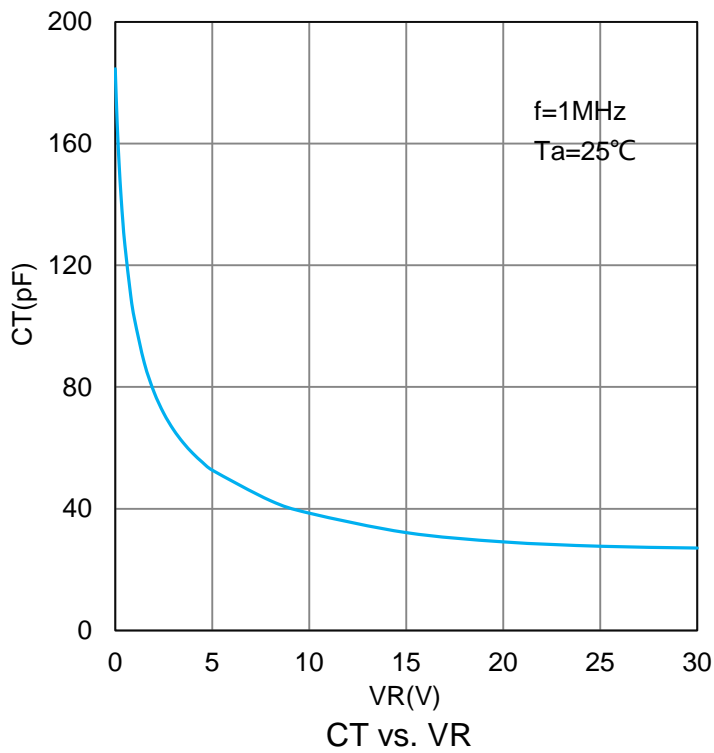
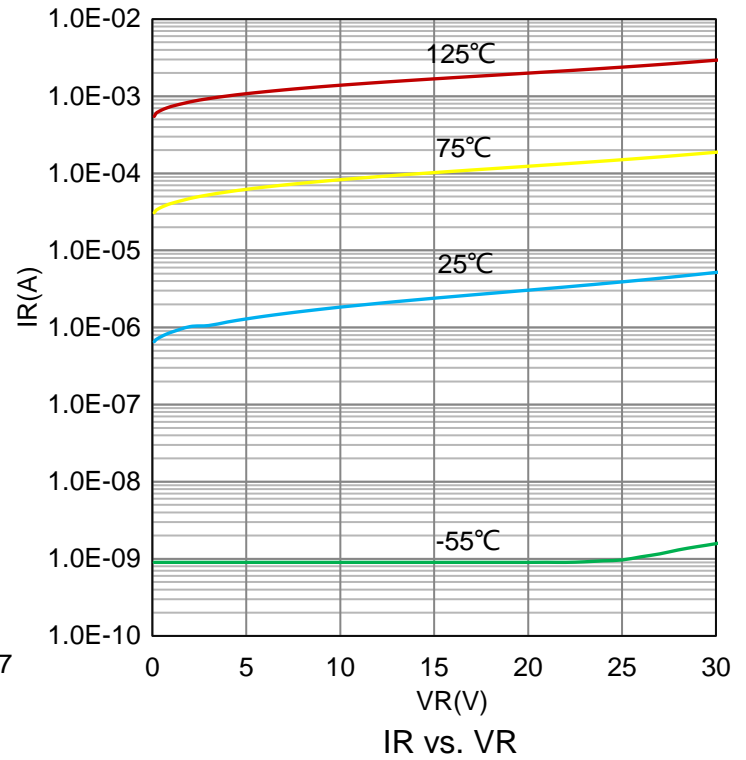
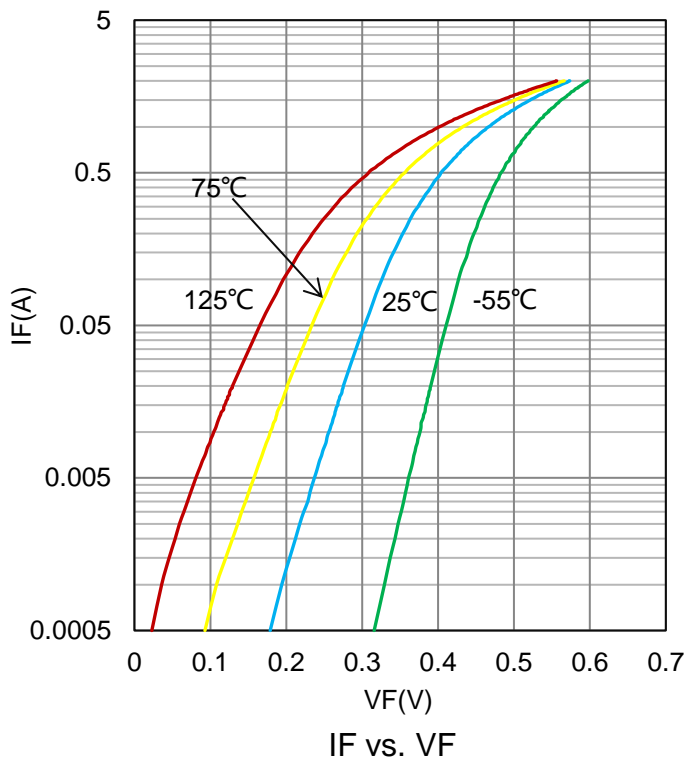
1. FR-4 or FR-5 = 3.5 × 1.5 inches using a 1 inch Cu pad

ELECTRICAL CHARACTERISTICS (Ta= 25℃)

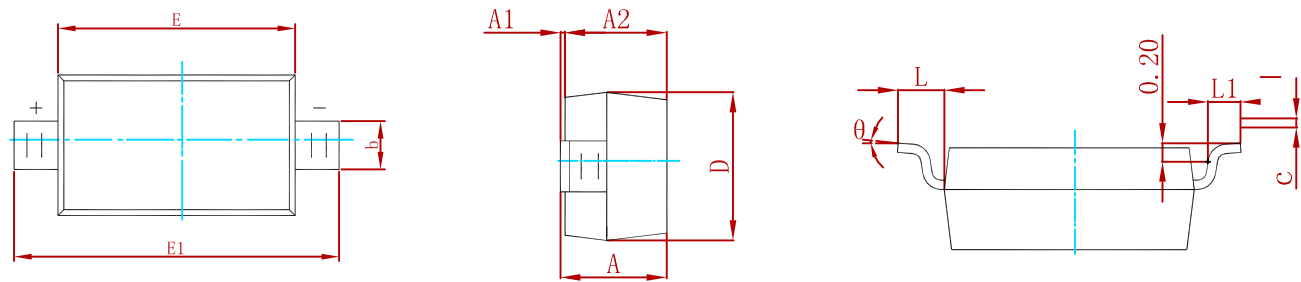
| Characteristic | Symbol | Min | Typ. | Max | Unit |
|---|--------|-------------|----------------|-------------------|------|
| Reverse Breakdown Voltage (IR=500μA) | VBR | 30 | - | - | V |
| Maximum instantaneous forward Voltage(Note 2) (IF = 0.1 A, TJ = 25℃) (IF = 0.7 A, TJ = 25℃) (IF = 1.0 A, TJ = 25℃) | VF | - - - | - - 0.47 | 0.35 0.45 - | V |
| Maximum Instantaneous Reverse Current (Note 2) (VR=5V) (VR=30V) | IR | - - | - - | 10 60 | μA |

2. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2%.

ELECTRICAL CHARACTERISTICS CURVES

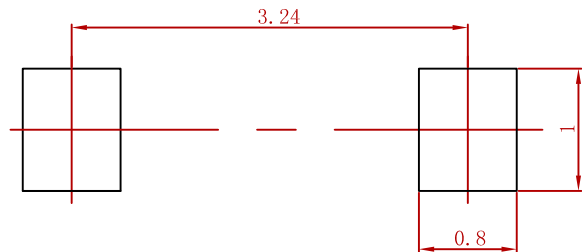


PACKAGE MECHANICAL DATA



| Symbol | Dimensions In Millimeter | | Dimensions In Inches | |
|--------|--------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 1.050 | 1.250 | 0.041 | 0.049 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 1.050 | 1.150 | 0.041 | 0.045 |
| b | 0.450 | 0.650 | 0.018 | 0.026 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 2.600 | 2.800 | 0.102 | 0.110 |
| E1 | 3.550 | 3.850 | 0.140 | 0.152 |
| L | 0.500 REF | | 0.020 REF | |
| L1 | 0.250 | 0.450 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |

Suggested Pad Layout



Note:
1.Controlling dlmenson:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout ls for reference purposes only.

REEL SPECIFICATION

| P/N | PKG | QTY |
|---------------|---------|------|
| NRVB130T1G-MS | SOD-123 | 3000 |

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