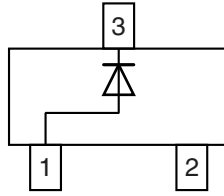


Small Signal Switching Diode



FEATURES

- Silicon epitaxial planar diode
- Fast switching diode in case SOT-23, especially suited for automatic insertion.
- AEC-Q101 qualified
- Base P/N-E3 - RoHS-compliant, commercial grade
- Base P/N-HE3 - RoHS-compliant, AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.8 mg

Packaging codes/options:

18/10K per 13" reel (8 mm tape), 10K/box

08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE

| PART | ORDERING CODE | INTERNAL CONSTRUCTION | TYPE MARKING | REMARKS |
|---------|----------------------------------|-----------------------|--------------|---------------|
| MMBD914 | MMBD914-E3-08 or MMBD914-E3-18 | Single diode | 5D | Tape and reel |
| | MMBD914-HE3-08 or MMBD914-HE3-18 | | | |

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

| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
|---|--|-------------|-------|------|
| Peak reverse voltage | | V_{RM} | 100 | V |
| Maximum average forward rectified current | | $I_{F(AV)}$ | 200 | mA |
| Maximum power dissipation | $T_{amb} = 25\text{ }^{\circ}\text{C}$ | P_{tot} | 225 | mW |

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

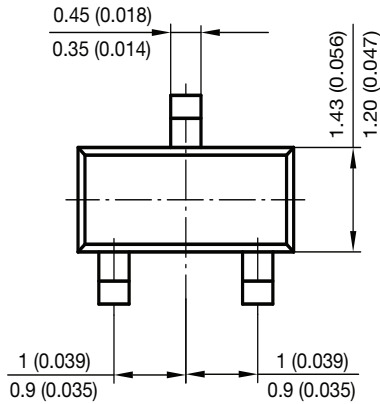
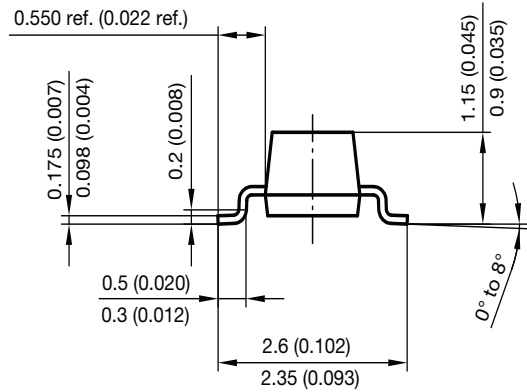
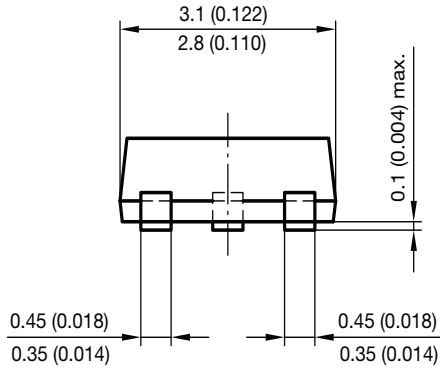
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
|------------------------------|----------------|-----------|---------------|--------------------|
| Maximum junction temperature | | T_j | 150 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | - 55 to + 150 | $^{\circ}\text{C}$ |
| Operating temperature range | | T_{op} | - 55 to + 150 | $^{\circ}\text{C}$ |

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

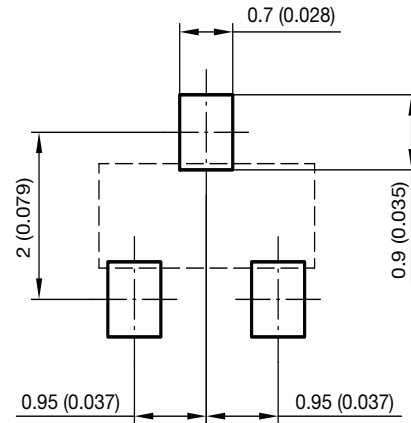
| PARAMETER | TEST CONDITION | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|-----------------------|--|----------|------|------|------|---------------|
| Forward voltage drop | $I_F = 10\text{ mA}$ | V_F | | | 1 | V |
| Reverse current | $V_R = 20\text{ V}$ | I_R | | | 25 | nA |
| | $V_R = 75\text{ V}$ | I_R | | | 5 | μA |
| Reverse recovery time | $I_F = 10\text{ mA to } I_R = 1\text{ mA},$ $V_R = 6\text{ V}, R_L = 100\text{ }\Omega$ | t_{rr} | | | 4 | ns |
| Diode capacitance | $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_D | | | 4 | pF |



PACKAGE DIMENSIONS in millimeters (inches): SOT-23



Foot print recommendation:



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Rev. 8 - Date: 23.Sept.2009
17418



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