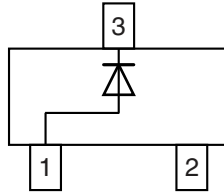


## Small Signal Switching Diode



### 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](http://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)

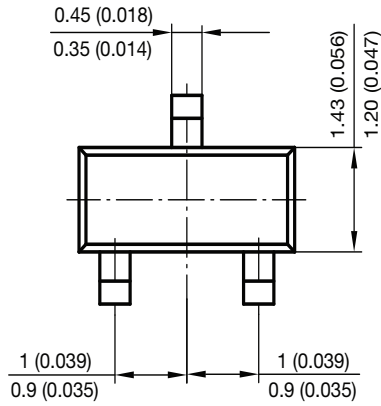
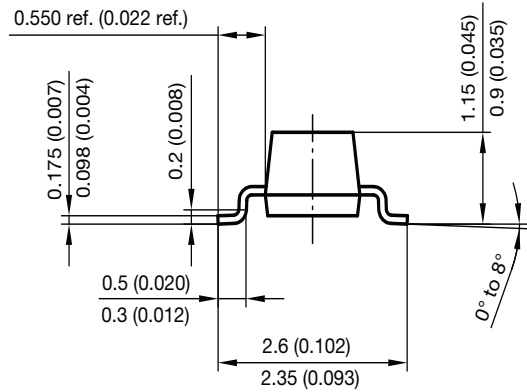
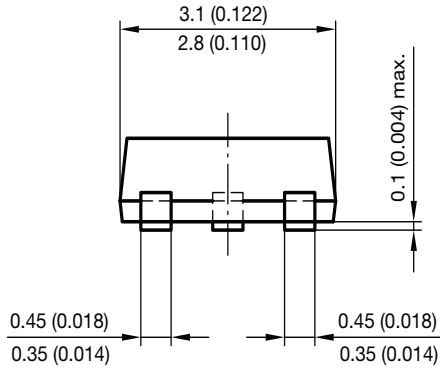
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Maximum junction temperature		$T_j$	150	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 55 to + 150	$^{\circ}\text{C}$
Operating temperature range		$T_{op}$	- 55 to + 150	$^{\circ}\text{C}$

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

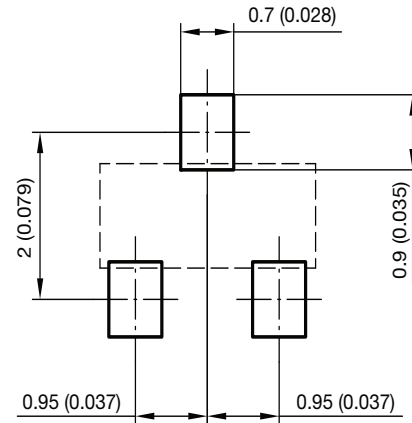
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	$I_F = 10\text{ mA}$	$V_F$			1	V
Reverse current	$V_R = 20\text{ V}$	$I_R$			25	nA
	$V_R = 75\text{ V}$	$I_R$			5	$\mu\text{A}$
Reverse recovery time	$I_F = 10\text{ mA}$ to $i_R = 1\text{ mA}$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$			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:



Document no.: 6.541-5014.01-4  
Rev. 8 - Date: 23.Sept.2009  
17418



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