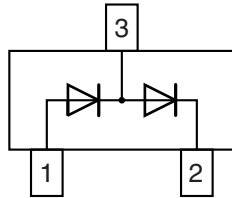
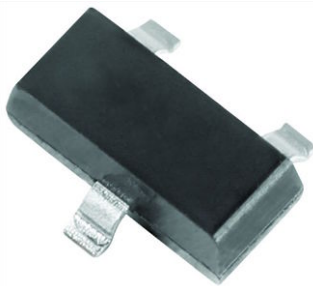




### Small Signal Switching Diode, Dual



#### FEATURES

- Silicon epitaxial planar diode
- Fast switching dual diode, especially suited for automatic insertion
- 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:

GS18/10K per 13" reel (8 mm tape), 10K/box

GS08/3K per 7" reel (8 mm tape), 15K/box

PARTS TABLE				
PART	ORDERING CODE	TYPE MARKING	INTERNAL CONSTRUCTION	REMARKS
MMBD7000-V	MMBD7000-V-GS18 or MMBD7000-V-GS08	M5C	Dual diodes serial	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Reverse voltage		V <sub>R</sub>	100	V
Forward current (continuous)		I <sub>F</sub>	200	mA
Non-repetitive peak forward current	t = 1 s	I <sub>FSM</sub>	500	mA
Power dissipation on FR-5 board		P <sub>tot</sub>	225	mW
	Derate above 25 °C	P <sub>tot</sub>	1.8	mW/K
Total device dissipation on Alumina substrate		P <sub>tot</sub>	300	mW
	Derate above 25 °C	P <sub>tot</sub>	2.4	mW/K

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Typical thermal resistance, junction to ambient air		R <sub>thJA</sub> <sup>(1)</sup>	417	K/W
		R <sub>thJA</sub> <sup>(2)</sup>	556	K/W
Maximum junction temperature		T <sub>j</sub>	150	°C
Storage temperature range		T <sub>stg</sub>	- 55 to + 150	°C

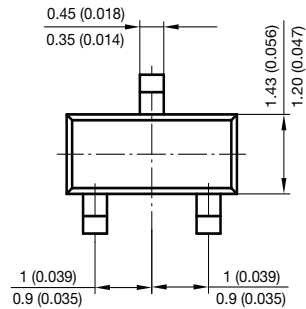
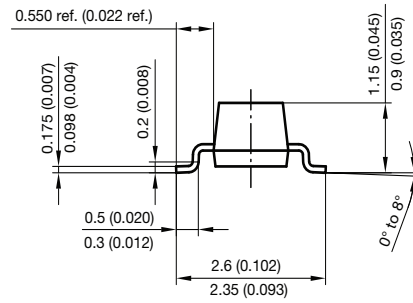
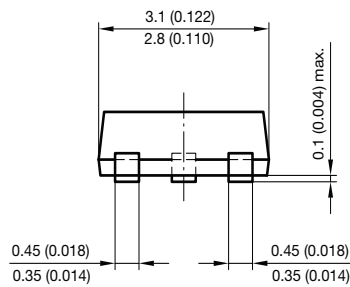
#### Notes

- (1) Device on alumina substrate
- (2) On FR-5 board

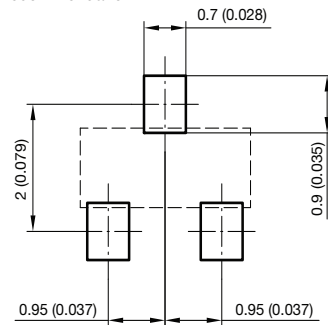


<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$				V
Leakage current	$V_R = 50\text{ V}$	$I_R$			1	$\mu\text{A}$
	$V_R = 100\text{ V}$	$I_R$			3	$\mu\text{A}$
	$V_R = 50\text{ V}, T_j = 125\text{ }^{\circ}\text{C}$	$I_R$			100	$\mu\text{A}$
Forward voltage	$I_F = 1\text{ mA}$	$V_F$	0.55		0.70	V
	$I_F = 10\text{ mA}$	$V_F$	0.67		0.82	V
	$I_F = 100\text{ mA}$	$V_F$	0.75		1.10	V
Diode capacitance	$V_R = 0, f = 1\text{ MHz}$	$C_D$			1.5	pF
Reverse recovery time	$I_F = 10\text{ mA}, i_R = 1\text{ mA}, R_L = 100\text{ }\Omega$	$t_{rr}$			4	ns

**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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