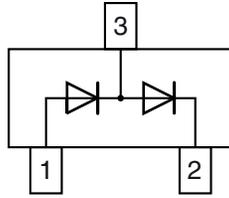




Small Signal Switching Diode, Dual



FEATURES

- Silicon epitaxial planar diode
- Fast switching dual diode, especially suited for automatic insertion
- AEC-Q101 qualified
- Base P/N-G3 - green, commercial grade
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



MECHANICAL DATA

Case: SOT-23

Weight: approx. 8.1 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
MMBD7000-G	MMBD7000-G3-08 or MMBD7000-G3-18	Dual diodes serial	M5G	Tape and reel

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

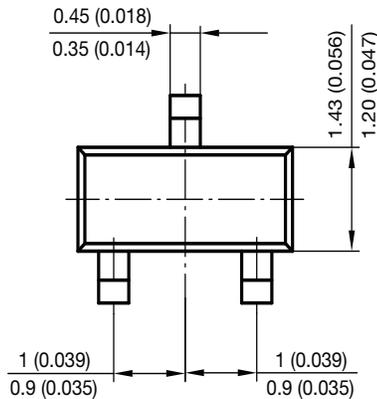
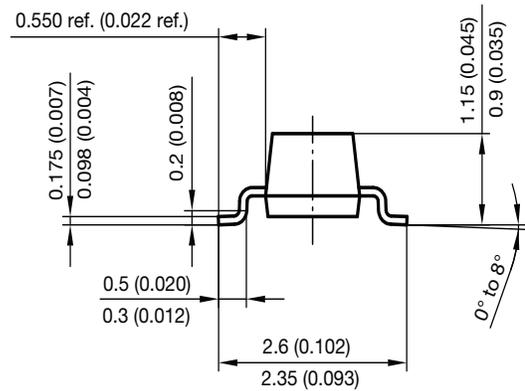
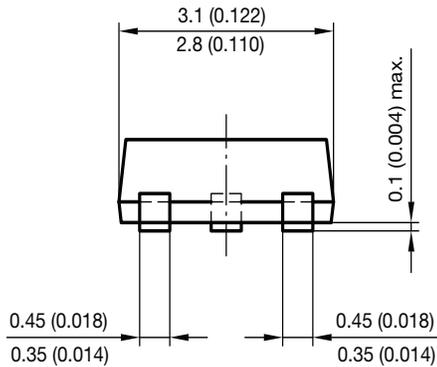
THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Typical thermal resistance, junction to ambient air		R _{thJA} ⁽¹⁾	417	K/W	
		R _{thJA} ⁽²⁾	556	K/W	
Maximum junction temperature		T _j	150	°C	
Storage temperature range		T _{stg}	-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

Notes

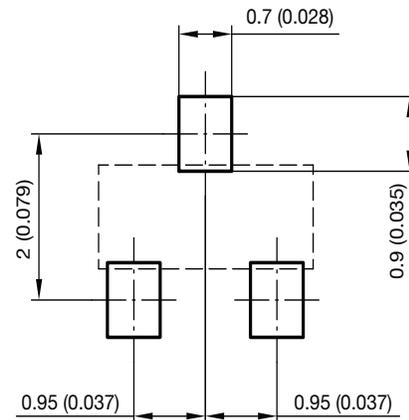
(1) Device on alumina substrate

(2) On FR-5 board

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$	100			V
Leakage current	$V_R = 50\text{ V}$	I_R			1000	nA
	$V_R = 100\text{ V}$	I_R			3	μA
	$V_R = 50\text{ V}, T_j = 125\text{ }^{\circ}\text{C}$	I_R			100	μA
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
Reverse recovery time	$I_F = I_R = 10\text{ mA}, i_R = 1\text{ mA}, R_L = 100\text{ }\Omega$	t_{rr}			4	ns
Diode capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	C_D			1.5	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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