

Vishay Semiconductors

Small Signal Switching Diode, High Voltage



FEATURES

- Silicon epitaxial planar diode
- Fast switching diode, especially suited for applications requiring high voltage capability
- AEC-Q101 qualified available (part number on request)
- Base P/N-G3 green, commercial grade
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912





COMPLIANT HALOGEN

GREEN (5-2008)

DESIGN SUPPORT TOOLS





MECHANICAL DATA

Case: SOD-123

Weight: approx. 9.4 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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
GSD2004W-G	GSD2004W-G3-08 or GSD2004W-G3-18	Single	B7	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Continuous reverse voltage		V_{R}	240	V	
Repetitive peak reverse voltage		V_{RRM}	300	V	
Forward current (continuous)		I _F	225	mA	
Repetitive peak forward current		I _{FRM}	625	mA	
Non-repetitive peak forward current	t _p = 1 μs	I _{FSM}	4	Α	
Non-repetitive peak forward current	t _p = 1 s	I _{FSM}	1	Α	
Power dissipation (1)		P _{tot}	350	mW	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	ER TEST CONDITION SYMBOL VALUE		VALUE	UNIT	
Typical thermal resistance junction to ambient air (1)		R _{thJA}	357	K/W	
Junction temperature		Tj	150	°C	
Storage temperature range		T _{stg}	-65 to +150	°C	
Operating temperature range		T _{op}	-55 to +150	°C	

Note

⁽¹⁾ Valid provided that electrodes are kept at ambient temperature

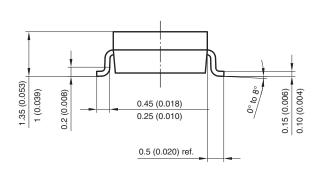


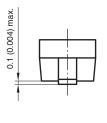
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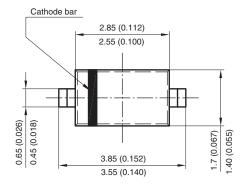
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse breakdown voltage	I _R = 100 μA	V _(BR)	300			V
Looke as assument	V _R = 240 V	I _R			100	nA
Leakage current	V _R = 240 V, T _j = 150 °C	I _R			100	μΑ
Forward valtage	I _F = 100 mA	V _F			1	V
Forward voltage	I _F = 20 mA	V _F		0.83	0.87	V
Diode capacitance	$V_F = V_R = 0$, $f = 1$ MHz	C _D			5	pF
Reverse recovery time	$I_F = I_R = 30$ mA, $i_R = 3$ mA, $R_L = 100 \Omega$	t _{rr}			50	ns

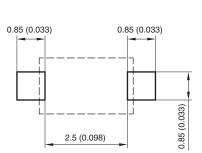
PACKAGE DIMENSIONS in millimeters (inches): SOD-123





Mounting Pad Layout





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