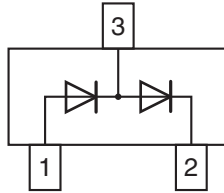




Dual In-Series Small Signal High Voltage Switching Diode



FEATURES

- Silicon epitaxial planar diode
- Fast switching dual in-series diode, especially suited for applications requiring high voltage capability
- AEC-Q101 qualified available
- 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

DESIGN SUPPORT TOOLS click logo to get started



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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
GSD2004S	GSD2004S-E3-08 or GSD2004S-E3-18	Dual serial	DB6	Tape and reel
	GSD2004S-HE3-08 or GSD2004S-HE3-18			

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Continuous reverse voltage		V _R	240	V
Peak repetitive reverse voltage		V _{RRM}	300	V
Forward current (continuous)		I _F	225	mA
Peak repetitive forward current		I _{FRM}	625	mA
Non-repetitive peak forward current	t _p = 1 μs	I _{FSM}	4.0	A
	t _p = 1 s	I _{FSM}	1.0	A
Power dissipation ⁽¹⁾		P _{tot}	350	mW

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

Note

⁽¹⁾ Device on fiberglass substrate



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
Leakage current	V _R = 240 V	I _R			100	nA
	V _R = 240 V, T _j = 150 °C	I _R			100	μA
Forward voltage	I _F = 20 mA	V _F		0.83	0.87	V
	I _F = 100 mA	V _F			1.00	V
Diode capacitance	V _F = V _R = 0, f = 1 MHz	C _D			5.0	pF
Reverse recovery time	I _F = I _R = 30 mA, i _R = 3.0 mA, R _L = 100 Ω	t _{rr}			50	ns

Note

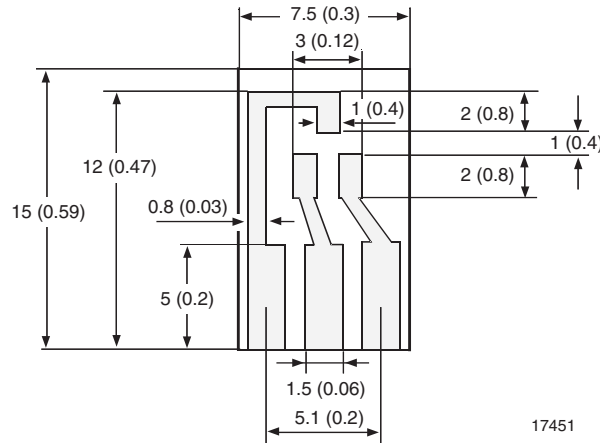
(1) Device on fiberglass substrate

LAYOUT FOR R_{thJA} TEST

Thickness:

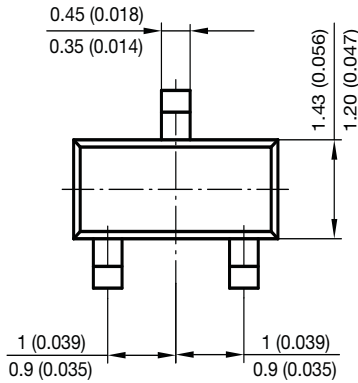
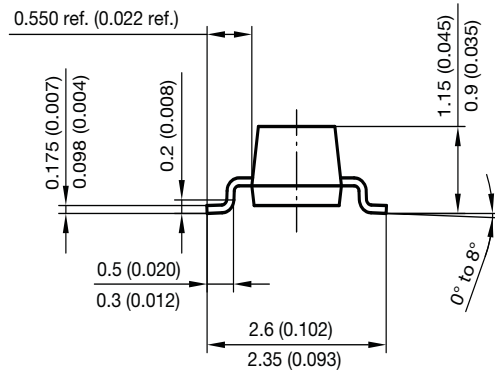
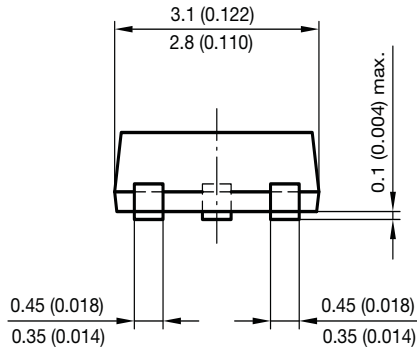
Fiberglass 1.5 mm (0.059 inches)

Copper leads 0.3 mm (0.012 inches)

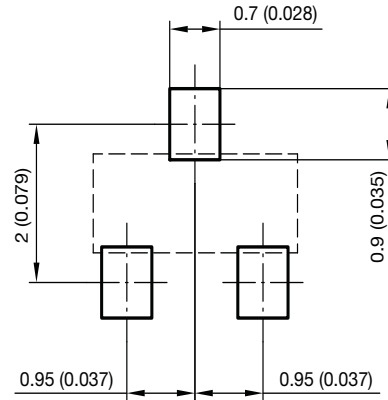




PACKAGE DIMENSIONS in millimeters (inches): SOT-23



Foot print recommendation:



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17418



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