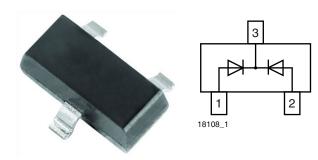
GSD2004C

Vishay Semiconductors

Dual Common Cathode Small Signal High Voltage Switching Diode



www.vishay.com

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

FEATURES

- Silicon epitaxial planar diode
- · Fast switching dual common cathode diode, especially suited for applications requiring high voltage capability



AEC-Q101 qualified

- RoHS COMPLIANT
- 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

PARTS TABLE					
PART	ORDERING CODE	INTERNAL CONSTRUCTION	TYPE MARKING	REMARKS	
GSD2004C	GSD2004C-E3-08 or GSD2004C-E3-18	Dual diodes common cathode	DBC	Tape and reel	
	GSD2004C-HE3-08 or GSD2004C-HE3-18	Dual diddes common cathode DBC	rape 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	
Peak repetitive reverse voltage		V _{RRM}	300	V	
Forward current (continuous)		١ _F	225	mA	
Peak repetitive forward current		I _{FRM}	625	mA	
Non repetitive peak feaward autrent			А		
Non-repetitive peak forward current	t _p = 1 s	IFSM	1	А	
Power dissipation ⁽¹⁾		P _{tot}	350	mW	

THERMAL CHARACTERISTICS ($T_{amb} = 25 \degree C$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Typical thermal resistance junction to ambient air ⁽¹⁾		R _{thJA}	357	°C/W
Junction temperature		Тj	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

Rev. 1.0, 17-May-13

Document Number: 85424

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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
	V _R = 240 V	I _R			100	nA
Leakage current	V _R = 240 V, T _j = 150 °C	I _R			100	μA
Forward valtage	I _F = 20 mA	V _F		0.83	0.87	V
Forward voltage	I _F = 100 mA	V _F			1	V
Diode capacitance	$V_F = V_R = 0$, f = 1 MHz	CD			5	pF
Reverse recovery time	$I_F = I_R = 30 \text{ mA}, i_R = 3 \text{ mA}, R_I = 100 \Omega$	t _{rr}			50	ns

TYPICAL CHARACTERISTICS (Tamb = 25 °C, unless otherwise specified)

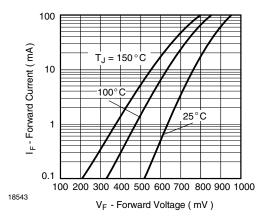


Fig. 1 - Typical Instantaneous Forward Characteristics

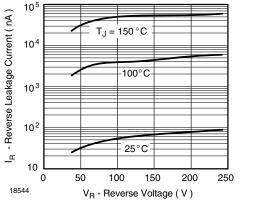
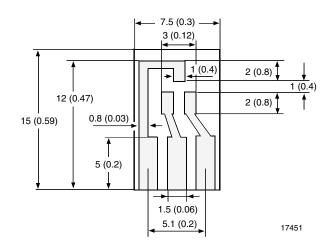


Fig. 2 - Typical Reverse Characteristics

Layout For RthJA test

Thickness: Fiberglass 1.5 mm (0.059 in.) Copper leads 0.3 mm (0.012 in.)

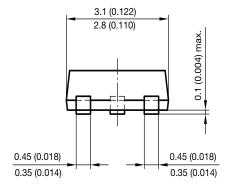


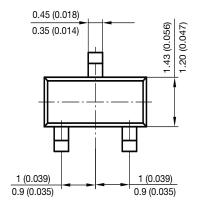
Rev. 1.0, 17-May-13 Document Number: 85424 For technical questions within your region: DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

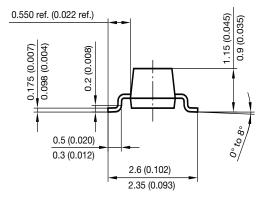


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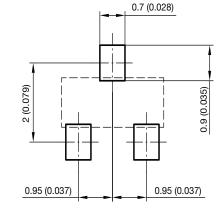
PACKAGE DIMENSIONS in millimeters (inches): SOT-23







Foot print recommendation:



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



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