

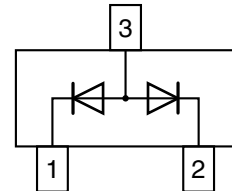
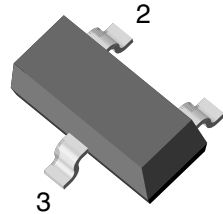
Dual Common-Anode Small-Signal High-Voltage Switching Diode

Features

- Silicon Epitaxial Planar Diode
- Fast switching dual common-anode diode, especially suited for applications requiring high voltage capability
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT



17033

Mechanical Data

Case: SOT-23

Weight: approx. 8.8 mg

Packaging Codes/Options:

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

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

Parts Table

Part	Ordering code	Marking	Remarks
GSD2004A-V	GSD2004A-V-GS18 or GSD2004A-V-GS08	DBA	Tape and Reel

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, 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	$t_p = 1\text{ }\mu\text{s}$	I_{FSM}	4	A
	$t_p = 1\text{ s}$	I_{FSM}	1	A
Power dissipation		P_{tot}	350 ¹⁾	mW

¹⁾ Device on Fiberglass Substrate, see layout on bottom of second page

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Typical thermal resistance junction to ambient air		R_{thJA}	357 ¹⁾	$^{\circ}\text{C/W}$
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Device on Fiberglass Substrate, see layout on bottom of second page

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}	300			V
Leakage current	$V_R = 240\text{ V}$	I_R			100	nA
	$V_R = 240\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$	I_R			100	μA
Forward voltage	$I_F = 20\text{ mA}$	V_F		0.83	0.87	V
	$I_F = 100\text{ mA}$	V_F			1	V
Diode capacitance	$V_F = V_R = 0, f = 1\text{ MHz}$	C_D			5	pF
Reverse recovery time	$I_F = I_R = 30\text{ mA}, I_{rr} = 3\text{ mA}, R_L = 100\text{ }\Omega$	t_{rr}			50	ns

¹⁾ Device on Fiberglass Substrate, see layout on bottom of second page

Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified

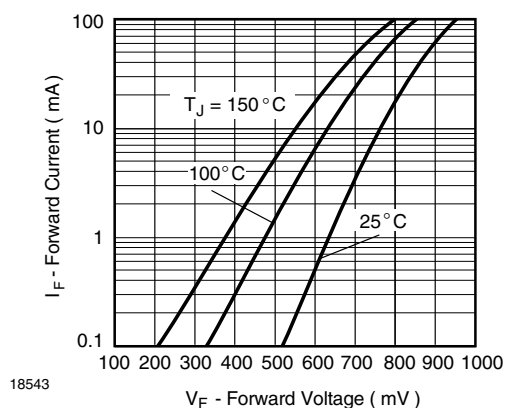


Figure 1. Typical Instantaneous Forward Characteristics

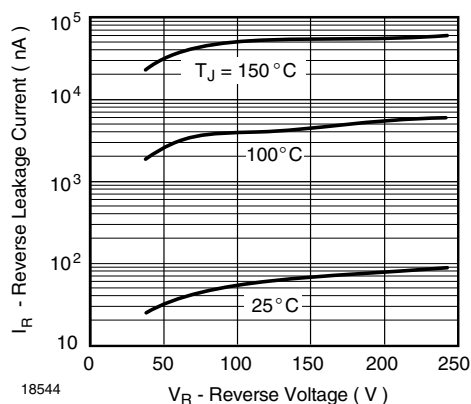


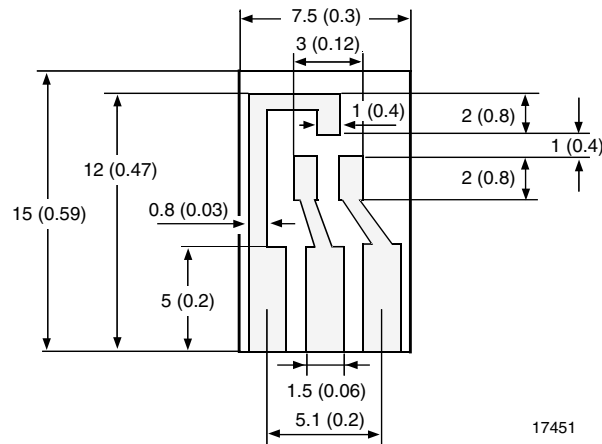
Figure 2. Typical Reverse Characteristics

Layout for R_{thJA} test

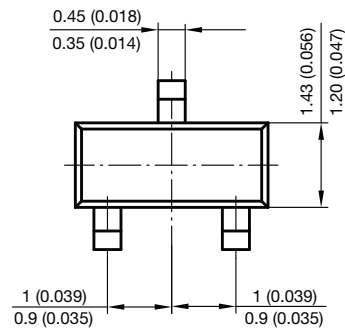
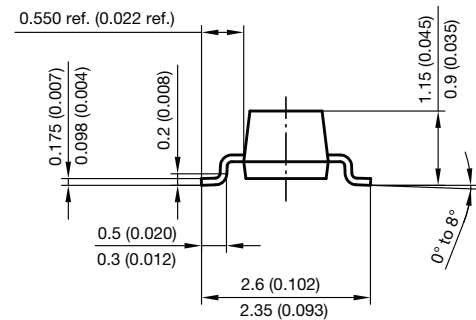
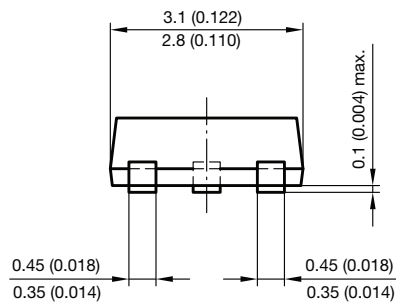
Thickness:

Fiberglass 1.5 mm (0.059 in.)

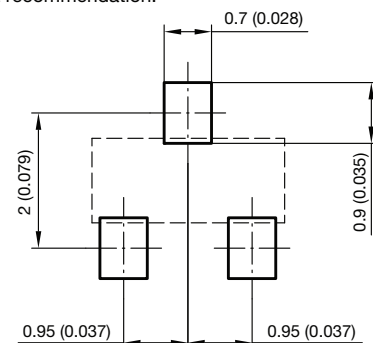
Copper leads 0.3 mm (0.012 in.)



Package Dimensions in millimeters (inches): SOT-23



Foot print recommendation:



Document no.: 6.541-5014.01-4

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17418



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