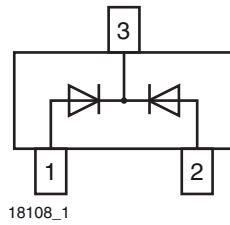
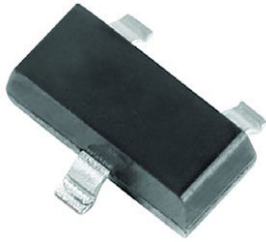


Small Signal Switching Diode, Dual



FEATURES

- Silicon epitaxial planar diode
- Fast switching dual diode with common cathode
- 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



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

DESIGN SUPPORT TOOLS click logo to get started



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	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS
BAV23C-G	BAV23C-G3-08 or BAV23C-G3-18	Common cathode	KT7	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	200	V
Repetitive peak reverse voltage		V_{RRM}	250	V
Non-repetitive peak forward current	$t = 1\ \mu\text{s}$	I_{FSM}	9.0	A
Non-repetitive peak forward surge current	$t = 1\ \text{s}$	I_{FSM}	0.5	A
Maximum average forward rectified current ⁽¹⁾		I_{FAV}	200	mA
Forward continuous current ⁽²⁾		I_F	400	mA
Repetitive peak forward current		I_{FRM}	625	mA
Power dissipation ⁽²⁾		P_{tot}	350	mW

Notes

⁽¹⁾ Measured under pulse conditions; pulse time = $t_p \leq 0.3\ \text{ms}$

⁽²⁾ Device on fiberglass substrate

THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air ⁽¹⁾		R_{thJA}	357	K/W
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-65 to +150	$^{\circ}\text{C}$
Operating temperature range		T_{op}	-55 to +150	$^{\circ}\text{C}$

Note

⁽¹⁾ Device on fiberglass substrate



ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	I _R = 100 μA, t _p = 300 μs	V _(BR)	250			V
Forward voltage	I _F = 100 mA	V _F			1	V
	I _F = 200 mA	V _F			1.25	V
Reverse current	V _R = 200 V	I _R			100	nA
	V _R = 200 V, T _j = 150 °C	I _R			100	μA
Dynamic forward resistance	I _F = 10 mA	r _f		5		Ω
Diode capacitance	V _R = 0 V, f = 1 MHz	C _D			5	pF
Reverse recovery time	I _F = I _R = 30 mA, i _R = 3 mA, R _L = 100 Ω	t _{rr}			50	ns

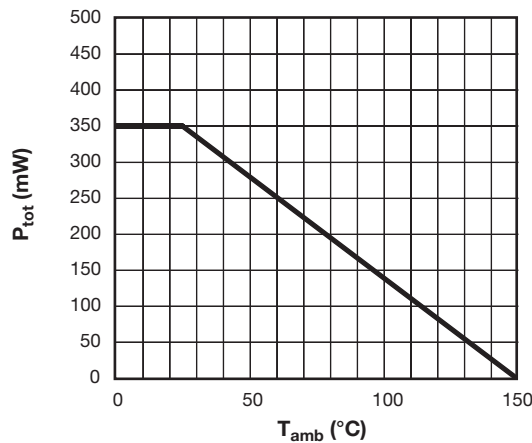


Fig. 1 - P_{tot} - Admissible Power Dissipation vs. Ambient Temperature

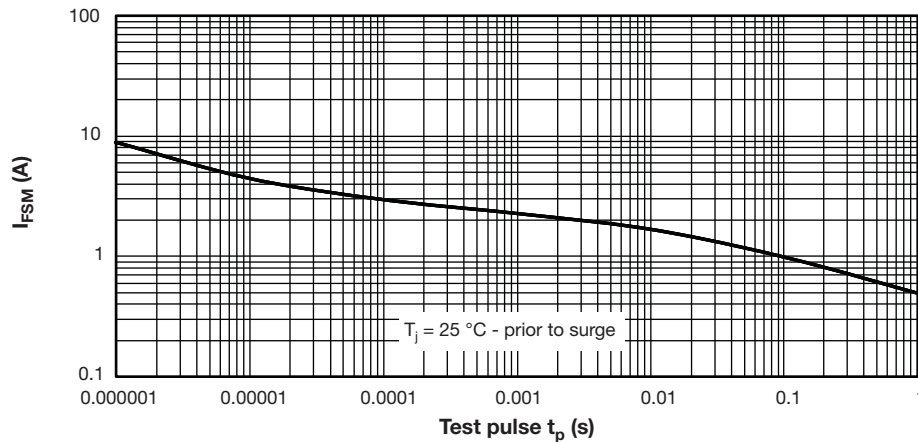


Fig. 2 - I_{FSM} - Non-Repetitive Peak Forward Current vs. Pulse Duration - Maximum Admissible Values of Square Pulses

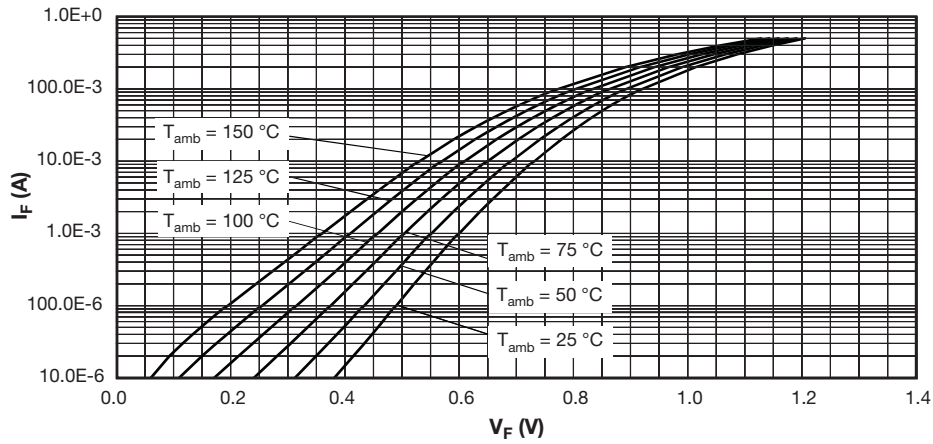


Fig. 3 - V_F - Typical Forward Current vs. Forward Voltage vs. Various Temperatures

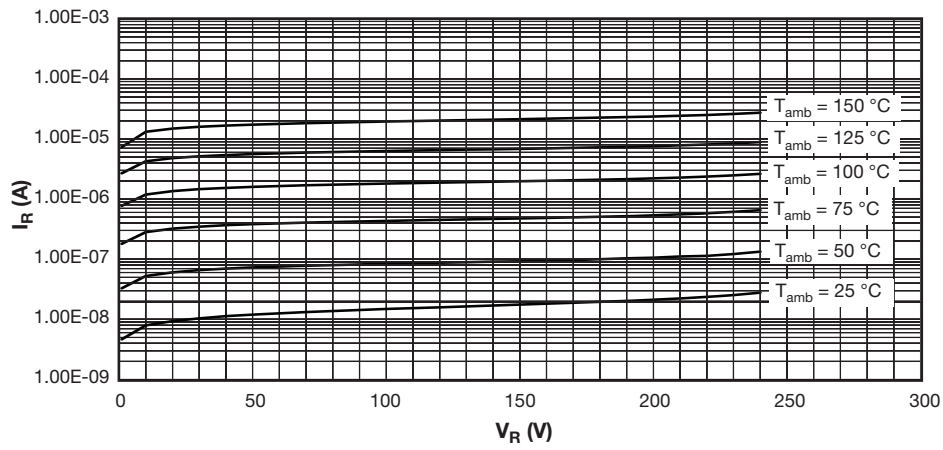
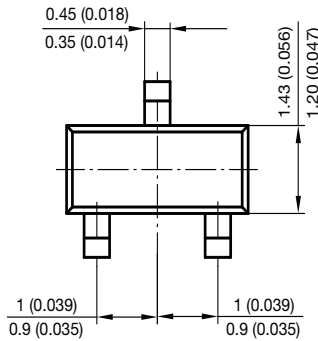
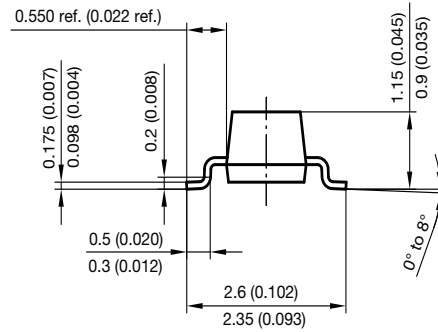
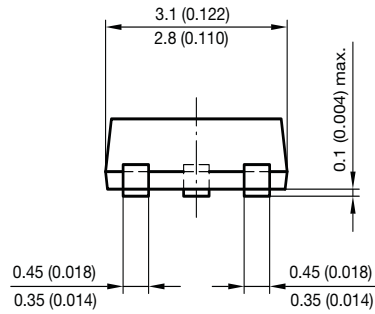


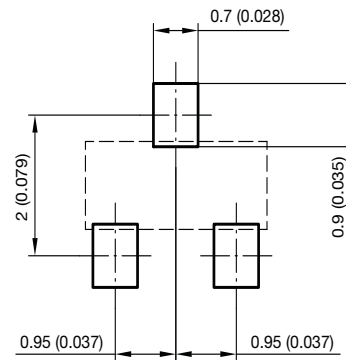
Fig. 4 - I_R - Typical Reverse Current vs. Reverse Voltage vs. Various Temperatures



PACKAGE DIMENSIONS in millimeters (inches): SOT-23



Foot print recommendation:



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17418



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