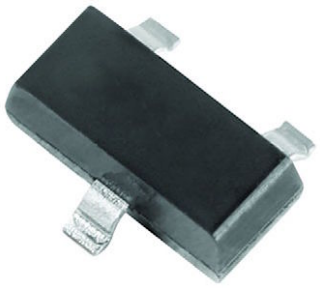
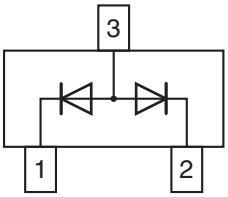
Small Signal Switching Diode, Dual





FEATURES

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

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

DESIGN SUPPORT TOOLS click logo to get started

3D Models Available

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
BAW56-G	BAW56-G3-08 or BAW56-G3-18	Common anode	JDG	Tape and reel

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage = working peak reverse voltage = DC blocking voltage		$V_R = V_{RRM}$	70	V
Forward continuous current		I_F	250	mA
Non repetitive peak forward current	t_p = 1 µs	I_{FSM}	2	A
	t_p = 1 ms	I_{FSM}	1	A
	t_p = 1 s	I_{FSM}	0.5	A
Power dissipation (1)		P_{tot}	350	mW

THERMAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Thermal resistance junction to ambient air		R_{thJA} (1)	430	K/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**
Forward voltage	I_F = 1 mA	V_F			0.715	V
	I_F = 10 mA	V_F			0.855	V
	I_F = 50 mA	V_F			1	V
	I_F = 150 mA	V_F			1.25	V
Reverse current	V_R = 70 V	I_R			2500	nA
	V_R = 70 V, T_j = 150 °C	I_R			100	µA
	V_R = 25 V, T_j = 150 °C	I_R			30	µA
Diode capacitance	V_F = V_R = 0, f = 1 MHz	C_D			2	pF
Reverse recovery time	I_F =10 mA to i_R =1 mA, V_R = 6 V, R_L = 100 Ω	t_{rr}			6	ns

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

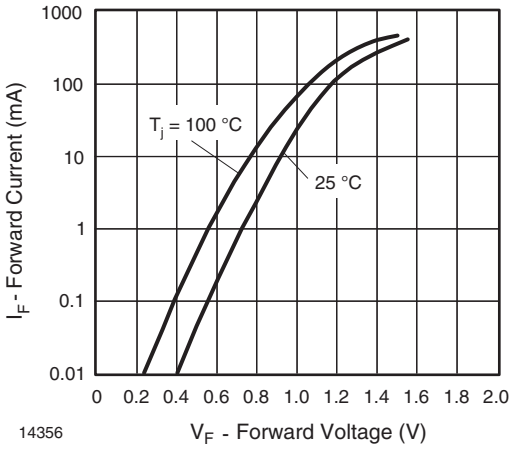


Fig. 1 - Forward Current vs. Forward Voltage

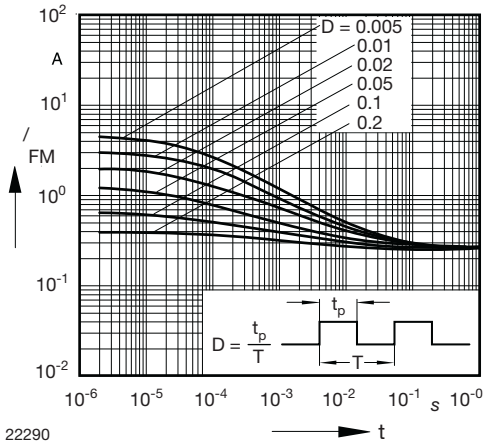
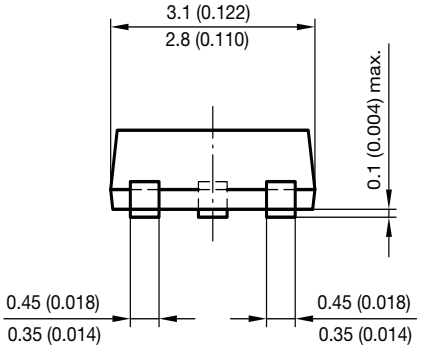
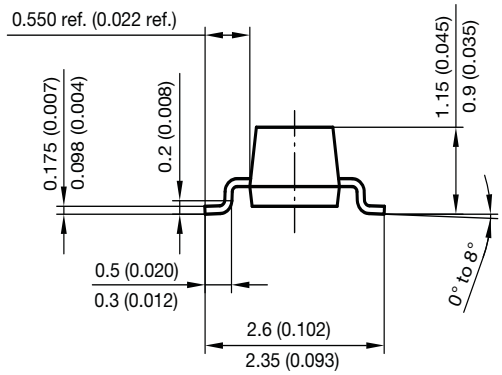
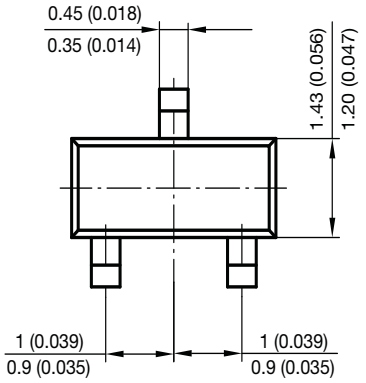


Fig. 2 - Peak Forward Current $/_{fm}$ = f (t_p)

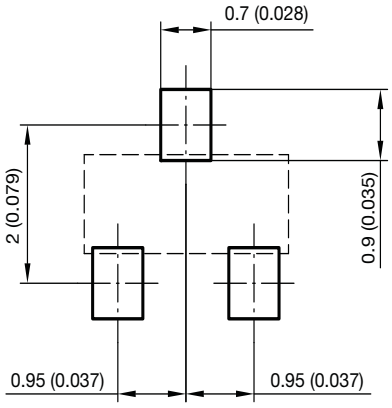
PACKAGE DIMENSIONS in millimeters (inches): **SOT-23**







Foot print recommendation:



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