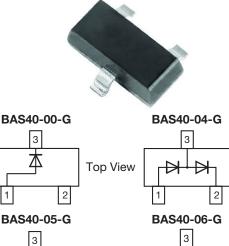
BAS40-00-G to BAS40-06-G

Vishay Semiconductors

Small Signal Schottky Diodes, Single and Dual



www.vishay.com

1 BAS40-05-G Top View H

DESIGN



Available					
PARTS TABL	1				
PART	ORDERING CODE	CIRCUIT CONFIGURATION	TYPE MARKING	REMARKS	
BAS40-00-G	BAS40-00-G3-08 or BAS40-00-G3-18	Single	43G		
BAS40-04-G	BAS40-04-G3-08 or BAS40-04-G3-18	Dual serial	44G	Tana and real	
BAS40-05-G	BAS40-05-G3-08 or BAS40-05-G3-18	Common cathode	45G	Tape and reel	
BAS40-06-G	BAS40-06-G3-08 or BAS40-06-G3-18	Common anode	46G		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage		$V_{RRM} = V_{RWM} = V_{R}$	40	V
Forward continuous current ⁽¹⁾		l _F	200	mA
Surge forward current ⁽¹⁾	t _p < 1 s	I _{FSM}	600	mA
Power dissipation ⁽¹⁾		P _{tot}	200	mW

Note

⁽¹⁾ Device on fiberglass substrate, see layout on next page

THERMAL CHARACTERISTICS ($T_{amb} = 25 \degree C$, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT	
Thermal resistance junction to ambient air ⁽¹⁾		R _{thJA}	500	K/W	
Junction temperature		Тj	125	°C	
Storage temperature range		T _{stg}	-65 to +150	°C	
Operating temperature range		T _{op}	-55 to +125	°C	

Note

⁽¹⁾ Device on fiberglass substrate, see layout on next page

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еЗ RoHS COMPLIANT

HALOGEN FREE <u>GREEN</u> (5-2008)

for definitions of compliance please see www.vishay.com/doc?99912

Base P/N-G3 - green, commercial grade

• These devices are protected by a PN junction

guardring against excessive voltage, such as

MECHANICAL DATA

• Material categorization:

Case: SOT-23

FEATURES

and fast switching

electrostatic discharges

(part number on request)

• AEC-Q101 qualified available

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

S TARI E	
SUPPORT TOOLS click logo to get started	
I SUDDADT TAALS aliak lags to get started	

BAS40-00-G to BAS40-06-G



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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 = 10 μA (pulsed)	V _(BR)	40			V
Leakage current	V _R = 30 V	I _R		20	100	nA
Forward voltage	I _F = 1 mA	V _F			380	mV
Forward voltage (1)	I _F = 40 mA	V _F			1000	mV
Diode capacitance	$V_{R} = 0 V, f = 1 MHz$	CD		4	5	pF
Reverse recovery time	$I_F = I_R = 10 \text{ mA}, i_R = 1 \text{ mA}, R_L = 100 \Omega$	t _{rr}			5	ns

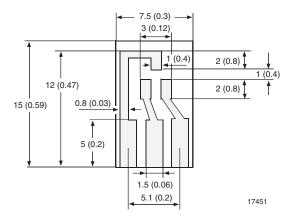
Note

⁽¹⁾ Pulse test $t_p < 300 \ \mu s$

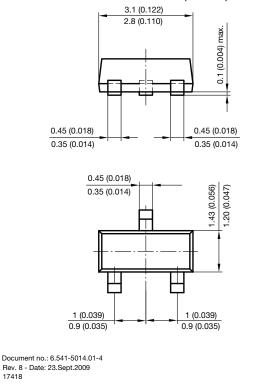
LAYOUT FOR R_{thJA} TEST

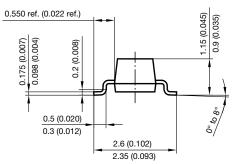
Thickness:

Fiberglass 1.5 mm (0.059 inches) Copper leads 0.3 mm (0.012 inches)

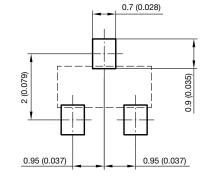


PACKAGE DIMENSIONS in millimeters (inches): SOT-23





Foot print recommendation:



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17418

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