

SMALL SIGNAL SCHOTTKY BARRIER DIODE BAS70C1



- Hermetic LCC1 Package
- $V_{BR} = 70V$, $I_F = 70mA$
- Low V_F
- High Reliability and Screening Options Available



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise stated)

V_R	Reverse Voltage	70V
$V_{R(RMS)}$	RMS Reverse Voltage	49V
$I_{F(AV)}$	Average Forward Current	70mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current	100mA
P_D	Total Power Dissipation at $T_C \leq 25^\circ C$	250mW
	De-rate $T_C > 25^\circ C$	2mW/ $^\circ C$
T_J	Operating Temperature Range	-55 to +150 $^\circ C$
T_{stg}	Storage Temperature Range	-55 to +150 $^\circ C$

THERMAL PROPERTIES

Symbols	Parameters	Max.	Units
$R_{\theta JSP}$	Thermal Resistance, Junction To Solder Pad	120	$^\circ C/W$

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

Symbols	Parameters	Test Conditions	Min.	Typ.	Max.	Units
V_{BR}	Breakdown Voltage	$I_R = 10\mu\text{A}$	70			V
$V_F^{(1)}$	Forward Voltage	$I_F = 1.0\text{mA}$			410	mV
		$I_F = 15\text{mA}$			1.0	V
$I_R^{(1)}$	Reverse Current	$V_R = 50\text{V}$			100	nA

DYNAMIC CHARACTERISTICS

C_j	Junction Capacitance	$V_R = 0$	$f = 1.0\text{MHz}$			2.0	pF
$t_{rr}^{(2)}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}$ $I_{REC} = 1.0\text{mA}$	$R_L = 100\Omega$			5.0	ns

Notes

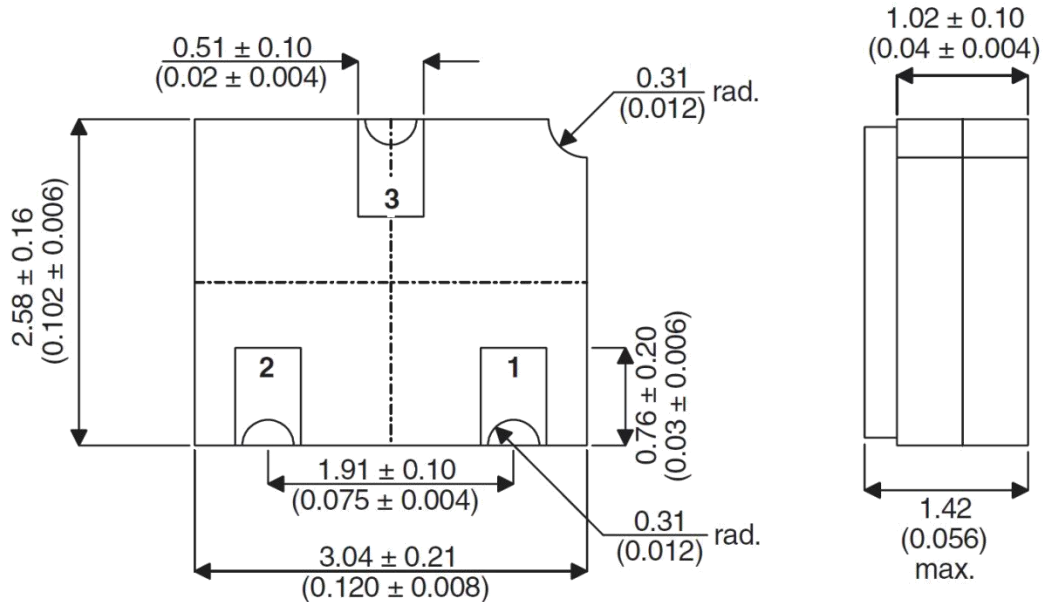
- (1) Pulse Width $\leq 380\mu\text{s}$, $\delta \leq 2\%$
- (2) By Design. Not a production test

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MECHANICAL DATA

Dimensions in mm (inches)



C1 (SOT-23 Compatible)
(Underside View)

PART NUMBER VARIANTS & PACKAGE PIN CONNECTIONS

Variant	Pad 1	Pad 2	Pad 3	Part Number	Terminal Finish ⁽³⁾	SML ROHS
A	Anode	N/C	Cathode	BAS70C1A	Standard Finish Gold	G4 ⁽⁴⁾
B	Anode	N/C	Cathode	BAS70C1B	Pre-tinned (63% Tin, 37% Lead)	LD ⁽⁴⁾

Notes

(3) Specify lead finish option by part number at point of order

(4) LD = e0, G4 = e4, as defined in J-STD-609 2nd Level Interconnect Category.