

# BAS70-04LT1

Preferred Device

## Dual Series Schottky Barrier Diode

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface mount package is excellent for hand held and portable applications where space is limited.

### Features

- Extremely Fast Switching Speed
- Low Forward Voltage
- Pb-Free Package is Available

### MAXIMUM RATINGS (T<sub>J</sub> = 150°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	70	Volts

### THERMAL CHARACTERISTICS

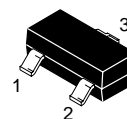
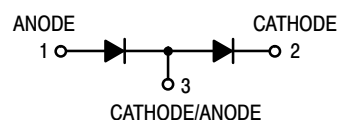
Characteristic	Symbol	Max	Unit
Forward Power Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>F</sub>	225 1.8	mW mW/°C
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C



**ON Semiconductor®**

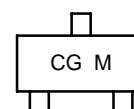
<http://onsemi.com>

## 70 VOLTS SCHOTTKY BARRIER DIODE



SOT-23  
(TO-236AB)  
CASE 318

### MARKING DIAGRAM



CG = Specific Device Code  
M = Date Code

### ORDERING INFORMATION

Device	Package	Shipping†
BAS70-04LT1	SOT-23	3000 / Tape & Reel
BAS70-04LT1G	SOT-23 (Pb-Free)	3000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

Preferred devices are recommended choices for future use and best overall value.

# BAS70-04LT1

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

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage ( $I_R = 10\ \mu\text{A}$ )	$V_{(BR)R}$	70	—	Volts
Total Capacitance ( $V_R = 0\ \text{V}$ , $f = 1.0\ \text{MHz}$ )	$C_T$	—	2.0	pF
Reverse Leakage ( $V_R = 50\ \text{V}$ ) ( $V_R = 70\ \text{V}$ )	$I_R$	— —	0.1 10	$\mu\text{A}$ dc
Forward Voltage ( $I_F = 1.0\ \text{mA}$ dc)	$V_F$	—	410	mVdc
Forward Voltage ( $I_F = 10\ \text{mA}$ dc)	$V_F$	—	750	mVdc
Forward Voltage ( $I_F = 15\ \text{mA}$ dc)	$V_F$	—	1.0	Vdc

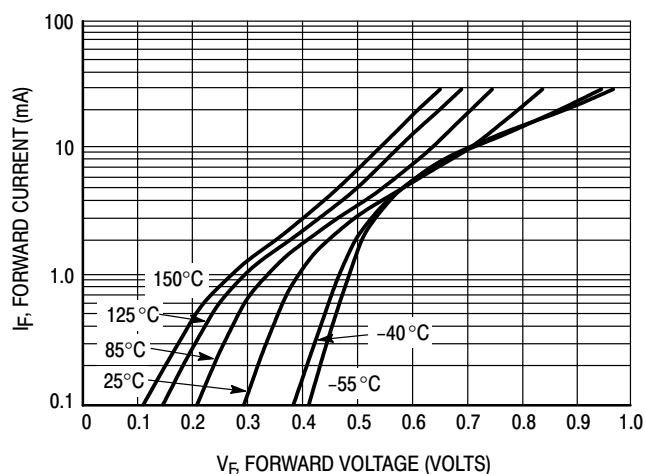


Figure 1. Typical Forward Voltage

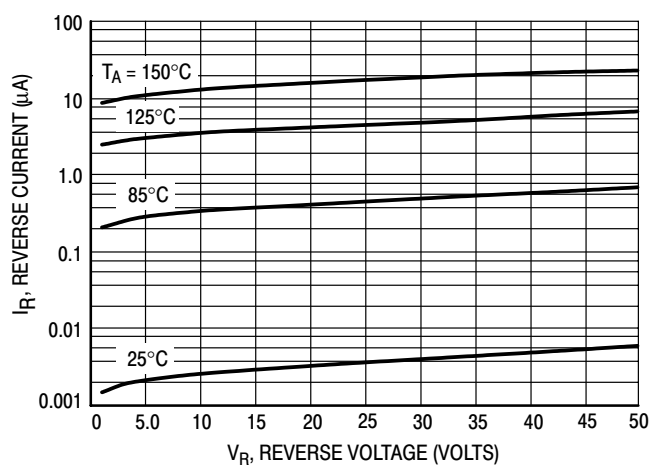


Figure 2. Reverse Current versus Reverse Voltage

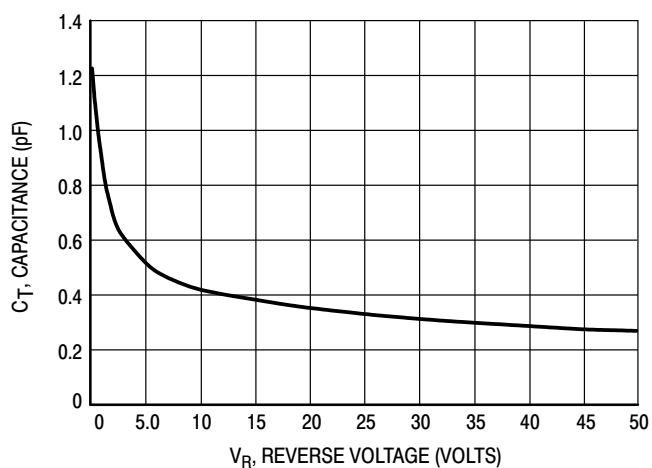
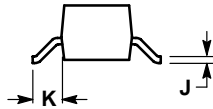
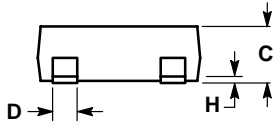
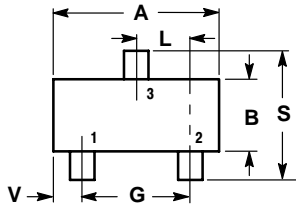


Figure 3. Typical Capacitance

# BAS70-04LT1

## PACKAGE DIMENSIONS

SOT-23 (TO-236AB)  
 PLASTIC PACKAGE  
 CASE 318-08  
 ISSUE AI

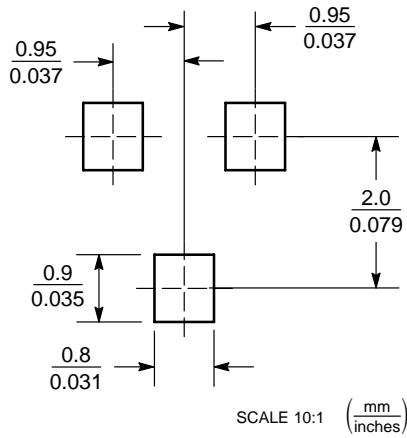


- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
  2. CONTROLLING DIMENSION: INCH.
  3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
  4. 318-03 AND -07 OBSOLETE, NEW STANDARD 318-08.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- STYLE 11:  
 PIN 1. ANODE  
 2. CATHODE  
 3. CATHODE-ANODE

## SOLDERING FOOTPRINT\*



\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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