



SURFACE MOUNT SCHOTTKY BARRIER DIODE

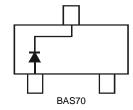
Features

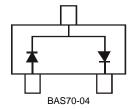
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

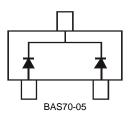
Mechanical Data

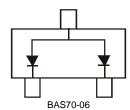
- Case: SOT23
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Solderable per MIL-STD-202, Method 208 (3)
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approximate)











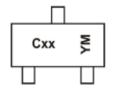
Ordering Information (Note 4 & 5)

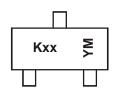
Part Number	Case	Packaging
BAS70-7-F	SOT23	3000/Tape & Reel
BAS70-04-7-F	SOT23	3000/Tape & Reel
BAS70-05-7-F	SOT23	3000/Tape & Reel
BAS70-06-7-F	SOT23	3000/Tape & Reel

Notes:

- 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
- 2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
- 4. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.
- 5. Product manufactured with Data Code V9 (week 33, 2008) and newer are built with Green Molding Compound. Product manufactured prior to Date Code V9 are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.

Marking Information





K=(SAT,Shangbai Assembly / test site)
C=(CAT / DTC , ChengDu Assembly / test site)
xx = Product Type Marking Code:

xx = Product Type Markin 73, K7C = BAS70

74, K7D = BAS70-04 75, K7E = BAS70-05

76, K7F = BAS70-06

76, K/F = BAS/0-06

YM = Date Code Marking Y = Year (ex: T = 2006)

M = Month (ex: 9 = September)

Date Code Kev

Baile Code	,														
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Code	M	Ν	Р	R	S	T	U	V	W	Х	Υ	Z	Α	В	С
Month	Jan	Fe	b	Mar	Apr	May	Ju	n	Jul	Aug	Sep	Oc	t	Nov	Dec
Code						_	_		_			_			_



Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	70	V
RMS Reverse Voltage	V _{R(RMS)}	49	V
Maximum Forward Continuous Current (Note 6)	I _{FM}	70	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s	I _{FSM}	100	mA

Thermal Characteristics

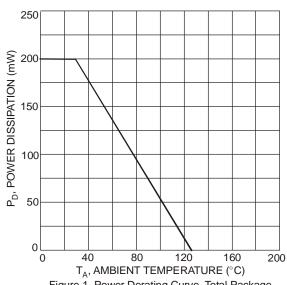
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 6)	P _D	200	mW
Thermal Resistance Junction to Ambient Air (Note 6)	$R_{ hetaJA}$	625	°C/W
Operating Junction Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

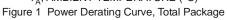
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

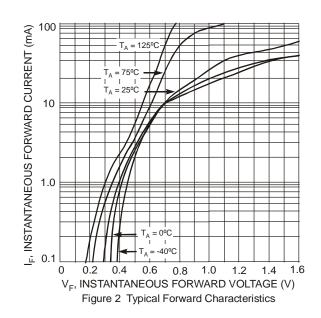
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 7)	V _{(BR)R}	70	_	V	$I_R = 10\mu A$
Forward Voltage	V _F	_	410 1000	mV	$t_p < 300 \mu s$, $I_F = 1.0 mA$ $t_p < 300 \mu s$, $I_F = 15 mA$
Reverse Current (Note 7)	I _R	_	100	nA	$t_p < 300 \mu s$, $V_R = 50 V$
Total Capacitance	C _T	_	2.0	pF	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	t _{rr}		5.0	ns	$I_F = I_R = 10 \text{mA}$ to $I_R = 1.0 \text{mA}$, $R_L = 100 \Omega$

Notes: Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.

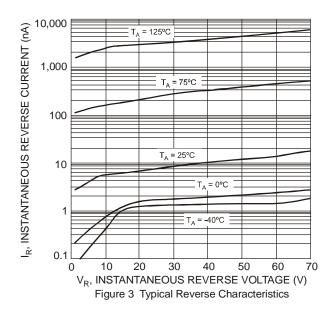
Short duration pulse test used to minimize self-heating effect.

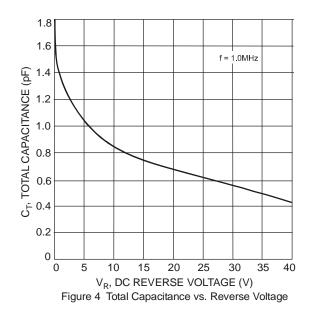






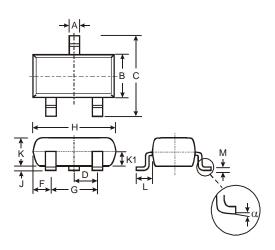






Package Outline Dimensions

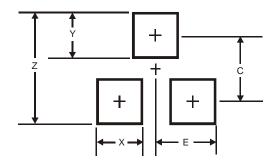
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



SOT23							
Dim	Min	Max	Тур				
Α	0.37	0.51	0.40				
В	1.20	1.40	1.30				
C	2.30	2.50	2.40				
D	0.89	1.03	0.915				
F	0.45	0.60	0.535				
G	1.78	2.05	1.83				
H	2.80	3.00	2.90				
7	0.013	0.10	0.05				
K	0.903	1.10	1.00				
K 1	-	1	0.400				
L	0.45	0.61	0.55				
М	0.085	0.18	0.11				
α	0°	8°	-				
All	All Dimensions in mm						

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
Z	2.9
Х	0.8
Υ	0.9
С	2.0
E	1.35



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многоканальный

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