



BAS40/ -04/ -05/ -06

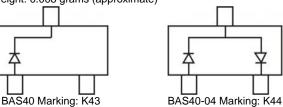
SURFACE MOUNT SCHOTTKY BARRIER DIODE

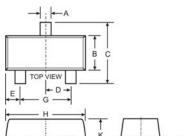
Features

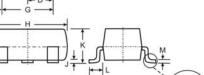
- Low Forward Voltage Drop
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Lead Free/RoHS Compliant (Note 3)
- Qualified to AEC-Q101 Standards for High Reliability

Mechanical Data

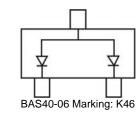
- Case: SOT-23 •
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Polarity: See Diagrams Below
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.008 grams (approximate)



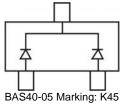




SOT-23										
Dim	Min	Max								
Α	0.37	0.51								
В	1.20	1.40								
С	2.30	2.50								
D	0.89	1.03								
Е	0.45	0.60								
G	1.78	2.05								
Н	2.80	3.00								
J	0.013	0.10								
К	0.903	1.10								
L	0.45	0.61								
М	0.085	0.180								
α	0°	8°								
All Dimensions in mm										



Top View



Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit		
Peak Repetitive Reverse Voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	40	V		
DC Blocking Voltage	V _R				
Forward Continuous Current (Note 1)	I _{FM}	200	mA		
Power Dissipation (Note 1)	Pd	350	mW		
Forward Surge Current (Note 1) @ t < 1.0s	I _{FSM}	600	mA		
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{0JA}	357	°C/W		
Operating Temperature Range	Тi	-55 to +125	O°		
Storage Temperature Range	T _{STG}	-65 to +150	O°		

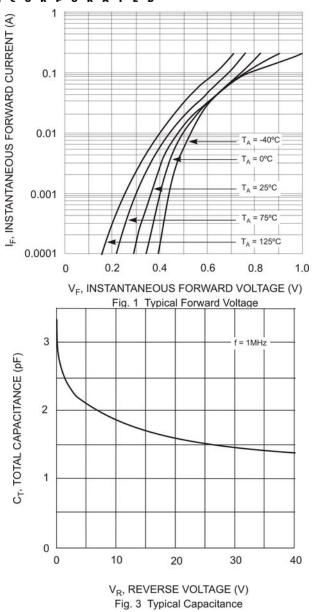
Electrical Characteristics @T_A = 25°C unless otherwise specified

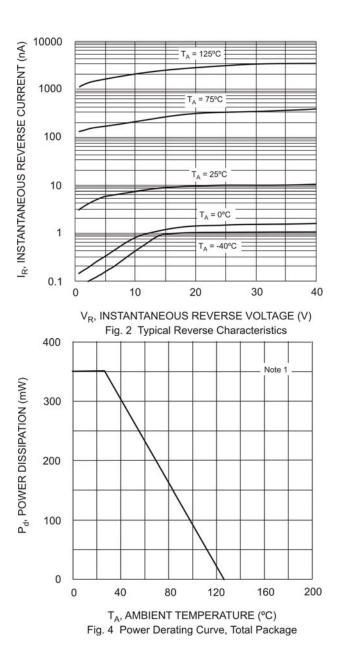
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	40	_	_	V	$I_R = 10\mu A$
Forward Voltage	V _F	_	_	380 1000	mV	t _p < 300μs, I _F = 1.0mA t _p < 300μs, I _F = 40mA
Reverse Leakage Current (Note 2)	I _R		20	200	nA	$t_p < 300 \mu s, V_R = 30 V$
Total Capacitance	CT		4.0	5.0	pF	$V_R = 0V$, f =1.0MHz
Reverse Recovery Time	t _{rr}	_	_	5.0	ns	$I_F = I_R = 10$ mA to $I_R = 1.0$ mA, $R_L = 100\Omega$

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. Notes: 1. Short duration pulse test used to minimize self-heating effect. 2.

3. No purposefully added lead.







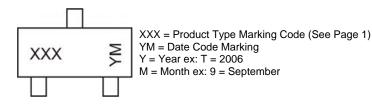


Ordering Information (Note 4)

Device	Packaging	Shipping		
BAS40-7-F	SOT-23	3000/Tape & Reel		
BAS40-04-7-F	SOT-23	3000/Tape & Reel		
BAS40-05-7-F	SOT-23	3000/Tape & Reel		
BAS40-06-7-F	SOT-23	3000/Tape & Reel		

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



Date Code Key

Year	1999	2000	2001	2002	2003	2004	1 200	5 2006	2007	2008	2009	2010	2011	2012
Code	К	L	М	Ν	Р	R	S	Т	U	V	W	Х	Y	Z
N	lonth	Ja	an F	eb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code		1	1	2	3	4	5	6	7	8	9	0	Ν	D

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