

BAS40 / A / C / S

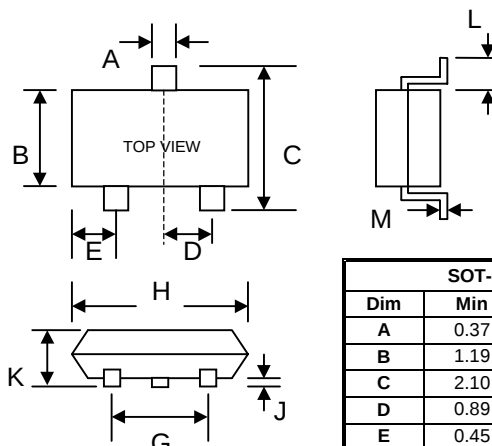
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

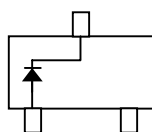
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

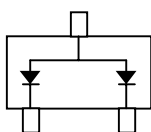
- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any



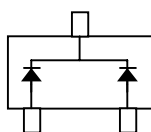
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		



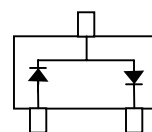
TOP VIEW



TOP VIEW



TOP VIEW



TOP VIEW

BAS40 Marking: S40 BAS40A Marking: S42 BAS40C Marking: S43 BAS40S Marking: S44

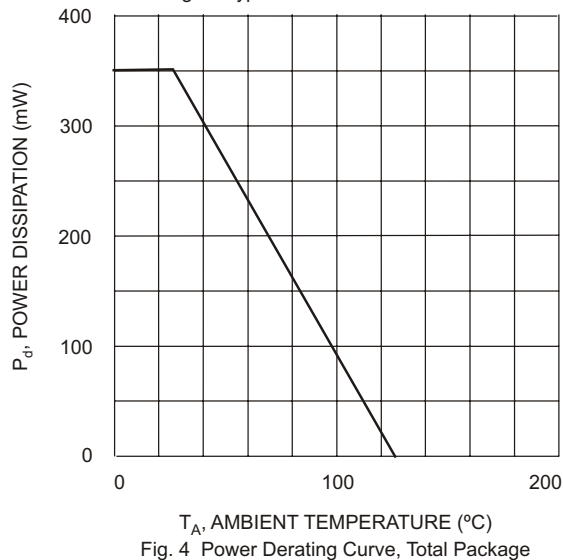
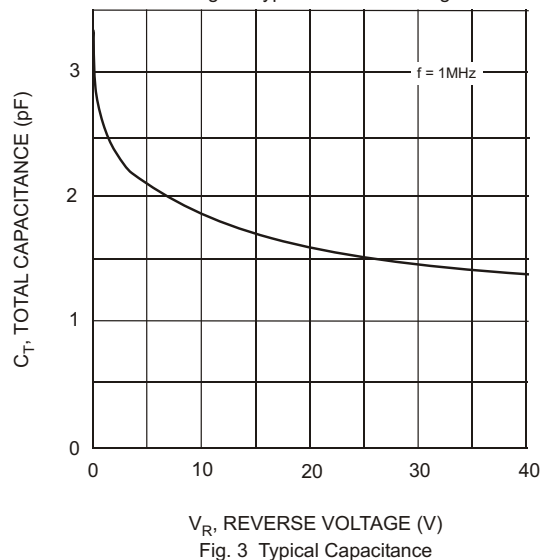
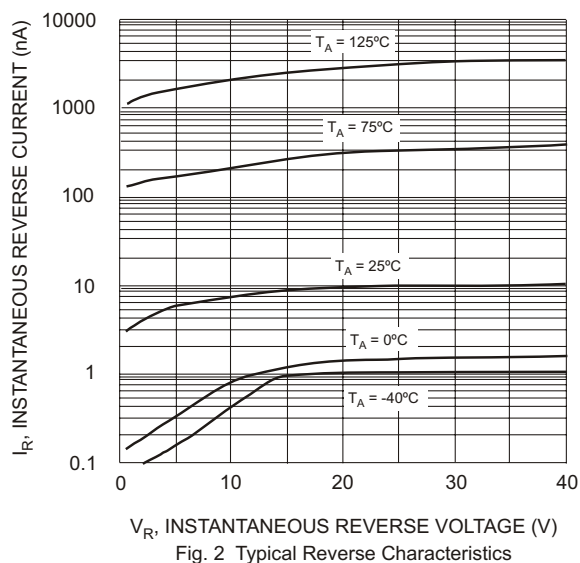
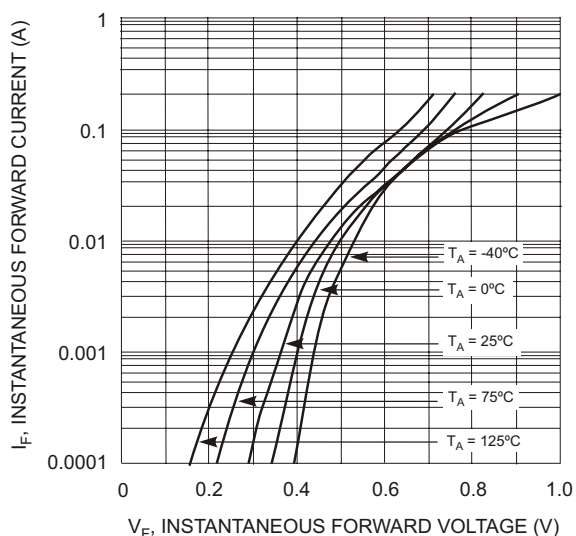
Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C unless otherwise specified

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

Note: 1. Device on fiberglass substrate.

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V _(BR) R	40	—	—	V	@ I _R = 10μA
Forward Voltage	V _F	—	—	380 500 1000	mV	@ I _F = 1.0mA, t _p < 300μs @ I _F = 10mA, t _p < 300μs @ I _F = 40mA, t _p < 300μs
Reverse Leakage Current	I _R	—	20	200	nA	@ V _R = 30V, t _p < 300μs
Junction Capacitance	C _j	—	4.0	5.0	pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	5.0	nS	I _F = 10mA through I _R = 10mA to I _R = 1.0mA, R _L = 100Ω



ORDERING INFORMATION

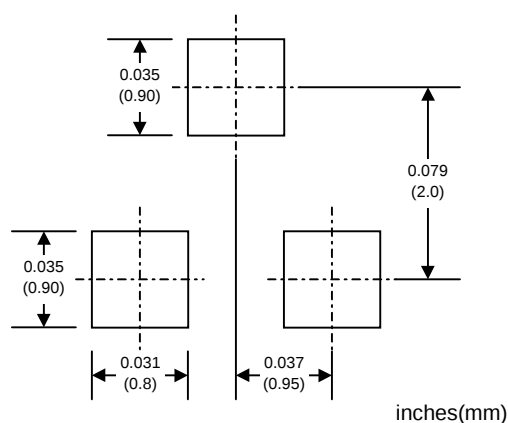
Product No.◆	Package Type	Shipping Quantity
BAS40-T1	SOT-23	3000/Tape & Reel
BAS40-T3	SOT-23	10000/Tape & Reel
BAS40A-T1	SOT-23	3000/Tape & Reel
BAS40A-T3	SOT-23	10000/Tape & Reel
BAS40C-T1	SOT-23	3000/Tape & Reel
BAS40C-T3	SOT-23	10000/Tape & Reel
BAS40S-T1	SOT-23	3000/Tape & Reel
BAS40S-T3	SOT-23	10000/Tape & Reel

Products listed in **bold** are WTE Preferred devices.

◆T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

RECOMMENDED FOOTPRINT



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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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