

BAS40W / AW / CW / SW

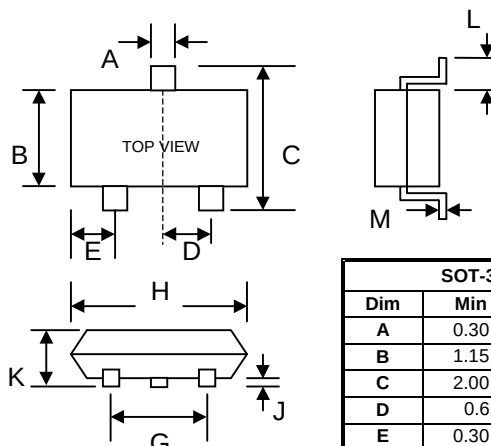
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

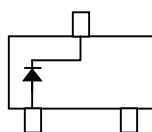
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

- Case: SOT-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Mounting Position: Any

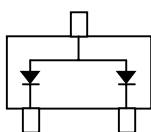


SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	—	0.10
K	0.90	1.10
L	0.25	—
M	0.05	0.15
All Dimensions in mm		



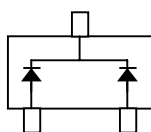
TOP VIEW

BAS40W Marking: S40



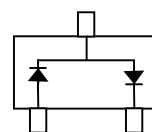
TOP VIEW

BAS40AW Marking: S42



TOP VIEW

BAS40CW Marking: S43



TOP VIEW

BAS40SW Marking: S44

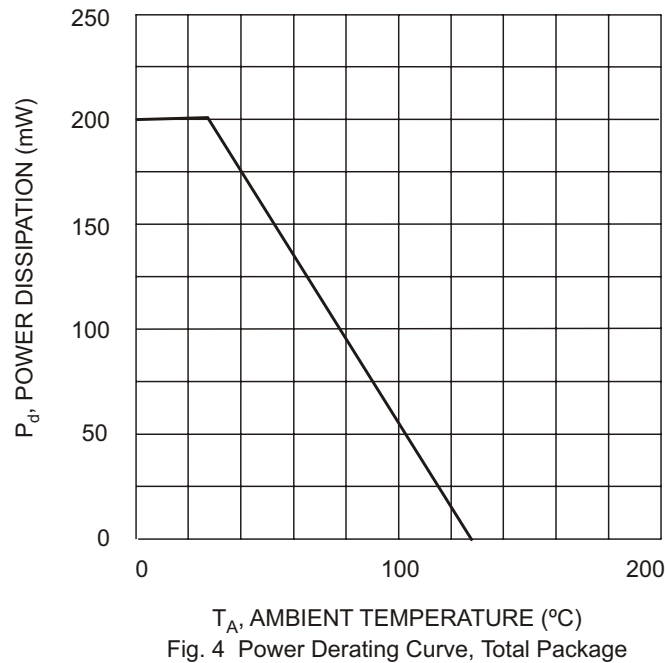
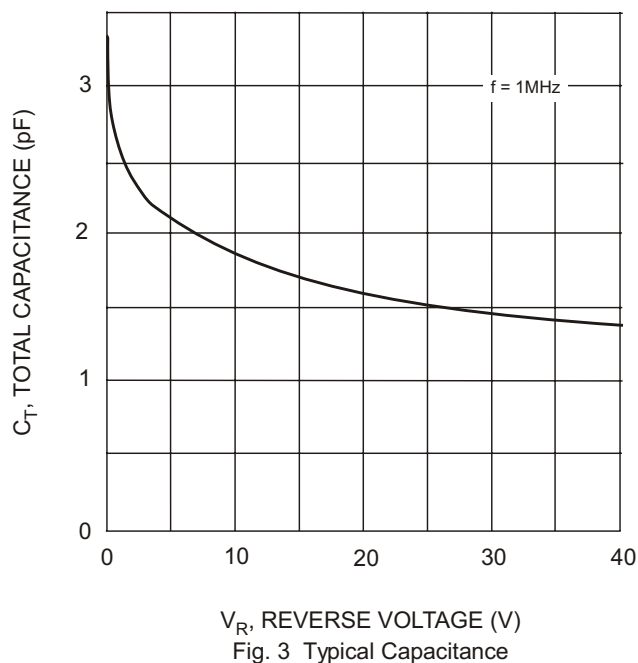
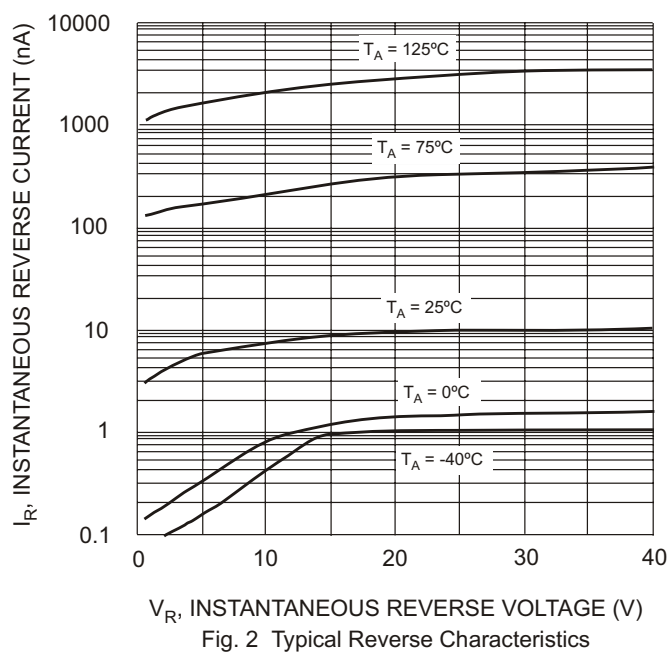
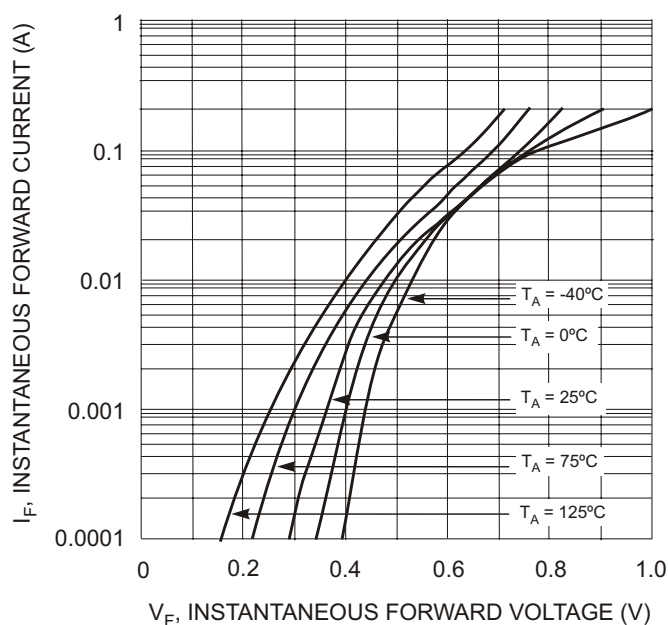
Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C unless otherwise specified

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	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	625	°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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	—	—	V	@ $I_R = 10\mu\text{A}$
Forward Voltage	V_F	—	—	380 500 1000	mV	@ $I_F = 1.0\text{mA}$, $t_p < 300\mu\text{s}$ @ $I_F = 10\text{mA}$, $t_p < 300\mu\text{s}$ @ $I_F = 40\text{mA}$, $t_p < 300\mu\text{s}$
Reverse Leakage Current	I_R	—	20	200	nA	@ $V_R = 30\text{V}$, $t_p < 300\mu\text{s}$
Junction Capacitance	C_j	—	4.0	5.0	pF	$V_R = 0\text{V}$, $f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	—	5.0	nS	$I_F = 10\text{mA}$ through $I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$, $R_L = 100\Omega$



ORDERING INFORMATION

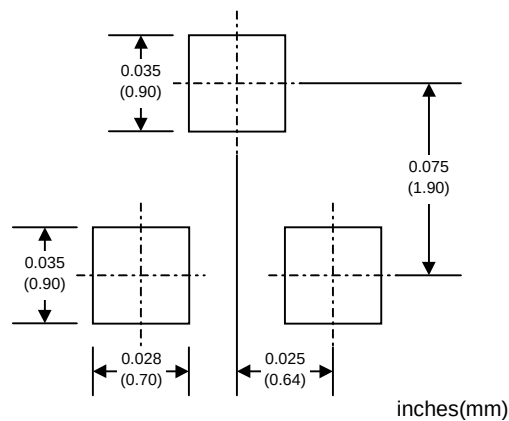
Product No.◆	Package Type	Shipping Quantity
BAS40W-T1	SOT-323	3000/Tape & Reel
BAS40W-T3	SOT-323	10000/Tape & Reel
BAS40AW-T1	SOT-323	3000/Tape & Reel
BAS40AW-T3	SOT-323	10000/Tape & Reel
BAS40CW-T1	SOT-323	3000/Tape & Reel
BAS40CW-T3	SOT-323	10000/Tape & Reel
BAS40SW-T1	SOT-323	3000/Tape & Reel
BAS40SW-T3	SOT-323	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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