

# Switching Diodes

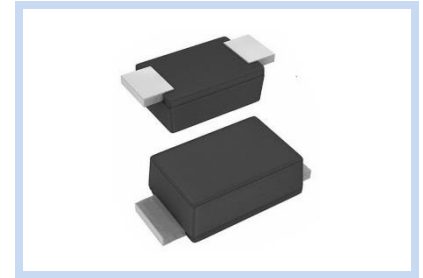
## 200mW SOD-323 AEC-Q101

BAS116WS-A

MERITEK

### FEATURE

- Power Dissipation: 200mW
- 100V Peak Reverse Voltage
- 200mA Continuous Forward Current
- Low Leakage Current
- Low Capacitance
- AEC-Q101 Qualified



### MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD, Method 2026
- Polarity: Color Band Denotes Cathode End



### MAXIMUM RATING



Parameter	Symbol	Value	Units
Reverse Voltage	$V_R$	75	V
Peak Reverse Voltage	$V_{RM}$	100	V
Continuous Forward Current	$I_F$	0.2	A
Non-Repetitive Peak Forward Surge Current at t=1μs	$I_{FSM}$	4	A

### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation	$P_{TOT}$	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	$T_J$	-55 to +150	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C

Note: FR-5 Board = 1x0.75x0.062 inch.

### ELECTRICAL CHARACTERISTICS

Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Reverse Breakdown Voltage	$I_R=100\mu A$	$V_{(BR)}$	75	-	-	V
Reverse Current	$V_R=75V$	$I_R$	-	2	5	nA
	$V_R=75V, T_J=150^\circ C$		-	8	80	nA
Forward Voltage	$I_F=1mA$	$V_F$	-	-	0.90	V
	$I_F=10mA$		-	-	1.00	V
	$I_F=50mA$		-	-	1.10	V
	$I_F=150mA$		-	-	1.25	V
Total Capacitance	$V_R=0V, f=1MHz$	$C_T$	-	-	2	pF
Reverse Recovery Time	$I_F=I_R=10mA, R_L=100\Omega$	$T_{RR}$	-	-	3	μs

Note:  $T_A = 25^\circ C$  unless otherwise specified.

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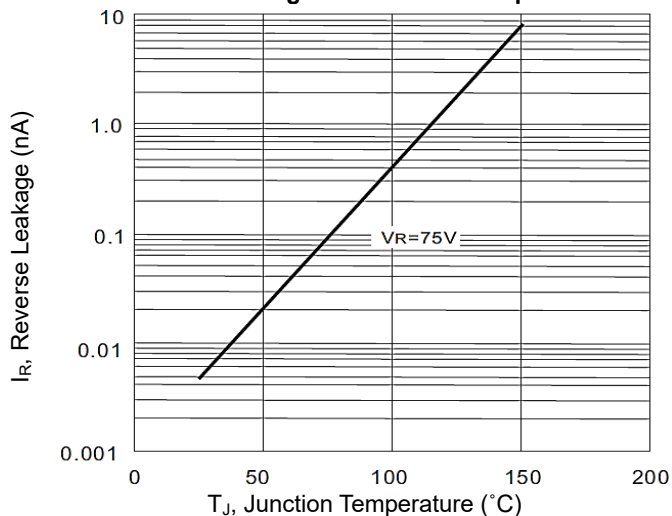
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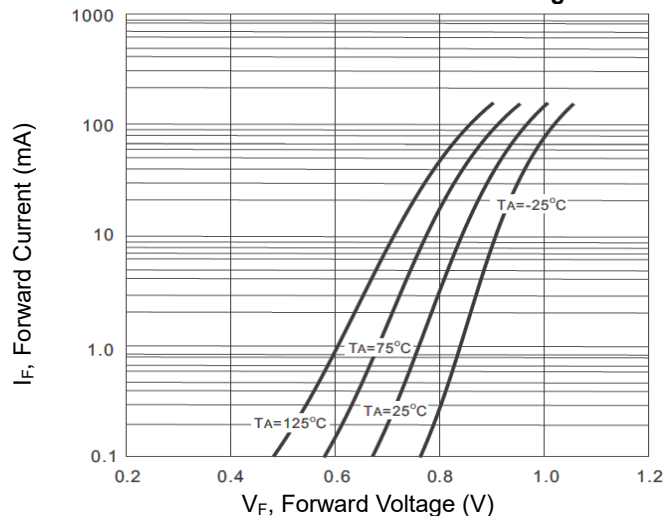
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### CHARACTERISTIC CURVES

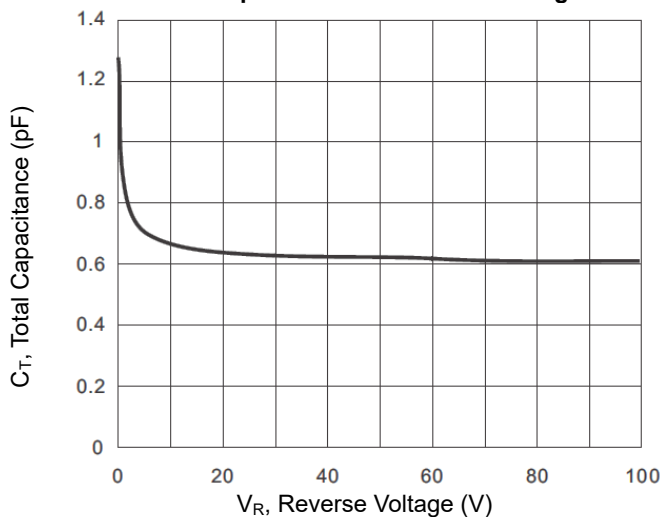
Reverse Leakage vs. Junction Temperature



Forward Current vs. Forward Voltage



Total Capacitance vs. Reverse Voltage



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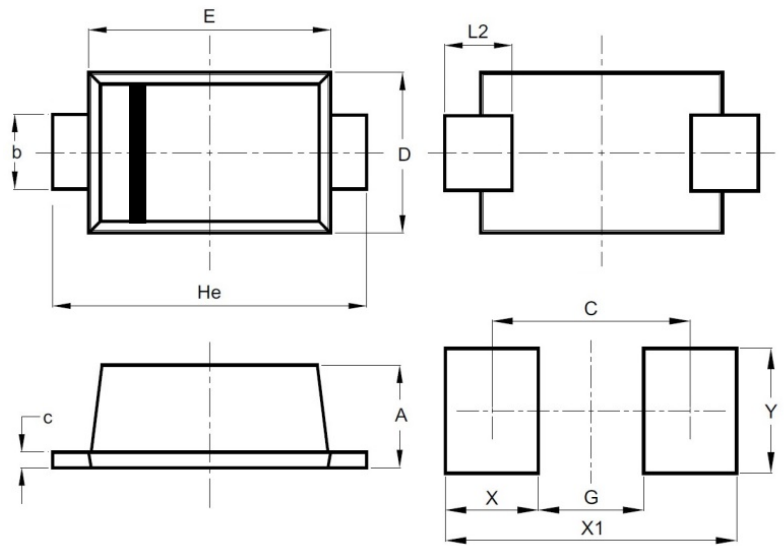
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### DIMENSIONS

SOD-323	Min (mm)	Max (mm)
A	0.70	0.90
b	0.25	0.35
c	0.05	0.15
D	1.15	1.35
E	1.75	1.95
He	2.30	2.70
L2	0.30	-
G	1.44	
C	2.17	
X	0.73	
X1	2.90	
Y	0.50	



\*Specifications subject to change without notice.