

# Switching Diodes

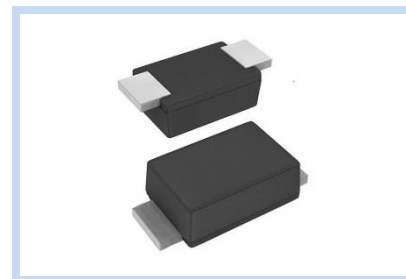
## 400mW SOD-323

BAS316

MERITEK

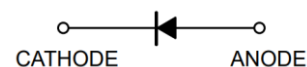
### FEATURE

- Power Dissipation: 400mW
- 100V Peak Reverse Voltage
- 250mA Average Forward Current
- Fast Switching Speed
- Low Leakage Current
- Low Capacitance



### 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	$V_R$	100	V
Peak Reverse Voltage	$V_{RM}$	100	V
Maximum Average Forward Current	$I_{F(AV)}$	250	mA
Non-Repetitive Peak Forward Current at $T_{J(init)}=25^{\circ}C$	$tp=0.001ms$	4.0	A
	$tp=1ms$	1.0	A
	$tp=1s$	0.5	A
Repetitive Peak Forward Current $tp \leq 0.5ms; D \leq 0.25$	$I_{FRM}$	500	mA
Power Dissipation	$P_D$	400	mW
Maximum Junction Capacitance at 1MHz and $V_R=0V$	$C_J$	1.5	pF
Typical Thermal Resistance	$R_{\theta JA}$	500	$^{\circ}C/W$
	$R_{\theta JC}$	200	$^{\circ}C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS

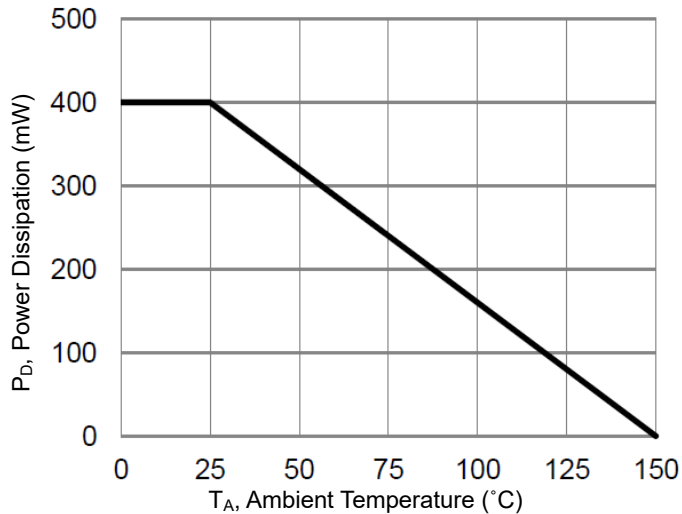
Parameter	Test Condition	Symbol	Min	Typ	Max	Units
Forward Voltage	$I_F=1mA$	$V_F$	-	-	0.715	V
	$I_F=10mA$		-	-	0.855	V
	$I_F=50mA$		-	-	1.000	V
	$I_F=150mA$		-	-	1.250	V
Reverse Current	$V_R=25V$	$I_R$	-	-	0.03	$\mu A$
	$V_R=100V$		-	-	0.50	$\mu A$
Maximum Reverse Recovery Time	-	$T_{RR}$	-	-	4	ns

Note:

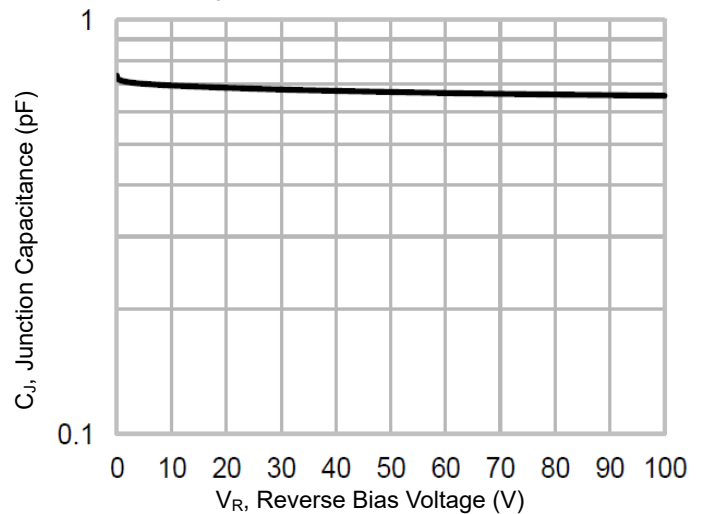
1.  $T_A = 25^{\circ}C$  unless otherwise specified.
2. Mounted on aluminum plate.
3. Mounted on a FR4, single-sided copper, with 114x76mm PCB.
4. Test Condition:  $I_F=10mA$  to  $I_R=10mA$ , Recovery to 1mA,  $R_L=100\Omega$ .

**CHARACTERISTIC CURVES**

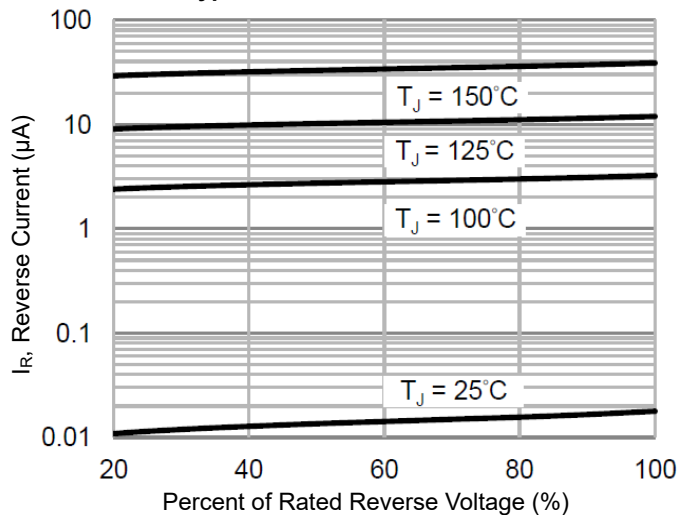
**Power Derating Curve**



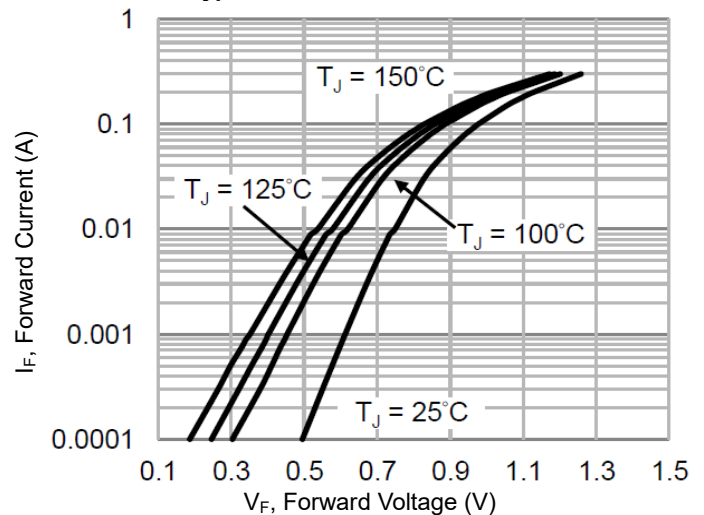
**Typical Junction Capacitance**



**Typical Reverse Characteristics**



**Typical Forward Characteristics**



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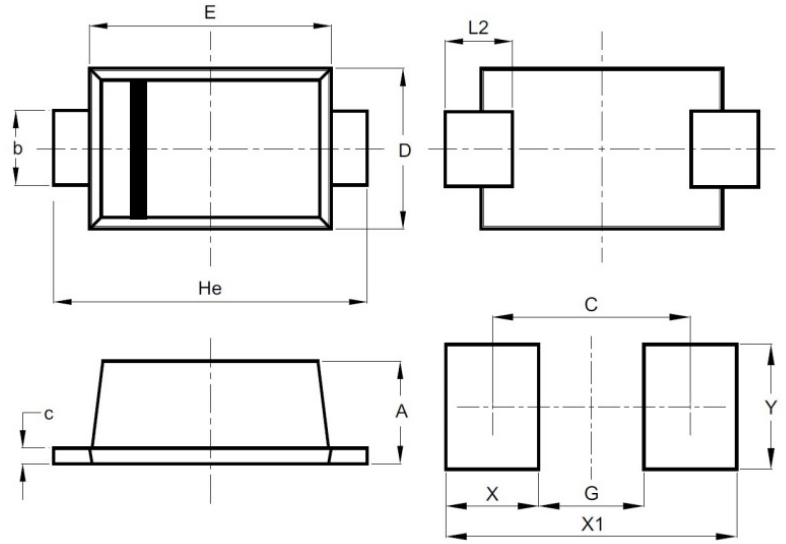
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**MERITEK**

### 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.