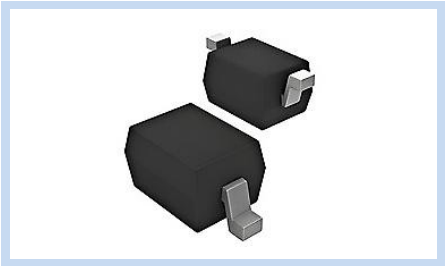
Schottky Barrier Rectifier
1A 40V SOD-323 AEC-Q101

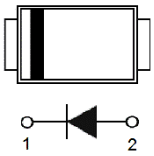
B5819WS-A

MERITEK

FEATURES



- Low Power Loss, High Efficiency
- Low Profile Package
- Ultra High-Speed Switching
- High Surge Capacity, Low Forward Voltage Drop
- Silicon Epitaxial Planar Chip, Metal Silicon Junction
- Application: Low-Voltage, High-Frequency Inverters, Free Wheeling, and Polarity Protection Application
- Compliant with AEC-Q101 Standards



RoHS

MECHANICAL DATA

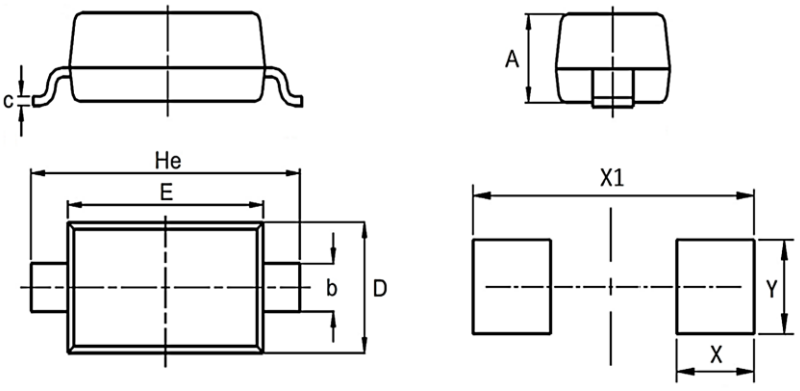
- Case: SOD-323, Molded Epoxy Meets UL94V-0
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End

ELECTRICAL CHARACTERISTICS

Parameter, T_A = 25°C		Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	V
Maximum RMS Voltage		V_{RMS}	28	V
Maximum DC Blocking Voltage		V_{DC}	40	V
Maximum Average Forward Current		$I_{(AV)}$	1.0	A
Peak Forward Surge Current (JEDEC method)		I_{FSM}	9.0	A
Maximum Forward Voltage at 1.0A		V_F	0.6	V
Maximum Reverse Current at Rated DC Blocking Voltage	T_J=25°C	I_R	1.0	mA
	T_J=100°C		10	
Typical Thermal Resistance Form Junction to Ambient		$R_{\theta JA}$	400	°C/W
Typical Thermal Resistance Form Junction to Case		$R_{\theta JC}$	100	°C/W
Diode Junction Capacitance		C_J	120	pF
Operating Junction Temperature Range		T_J	-55 to +125	°C
Storage Temperature Range		T_{STG}	-65 to +175	°C

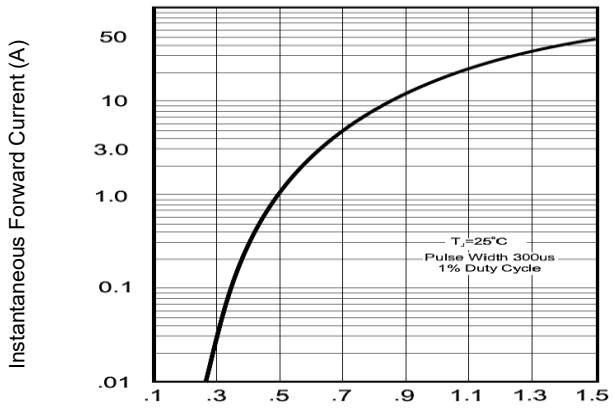
DIMENSIONS

Item	Min (mm)	Max (mm)
A	0.80	1.00
b	0.25	0.40
c	0.08	0.20
D	1.20	1.40
E	1.60	1.80
He	2.45	2.75
G	1.60	
X	0.63	
X1	2.86	
Y	0.83	

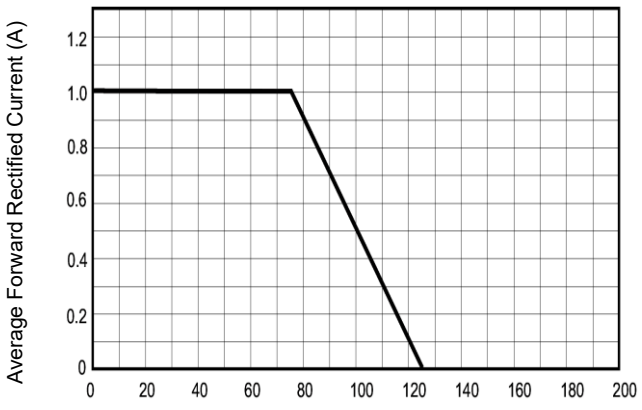


CHARACTERISTIC CURVES

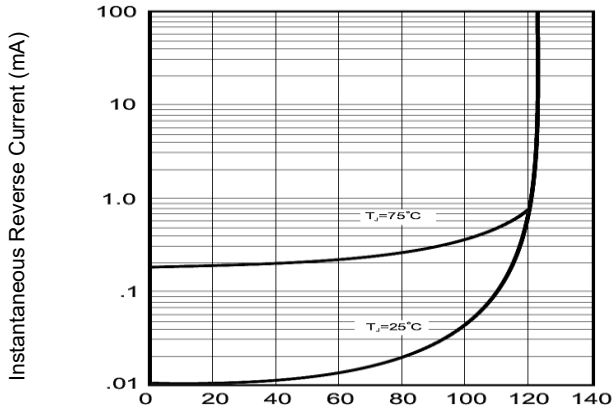
Typical Instantaneous Forward Characteristics



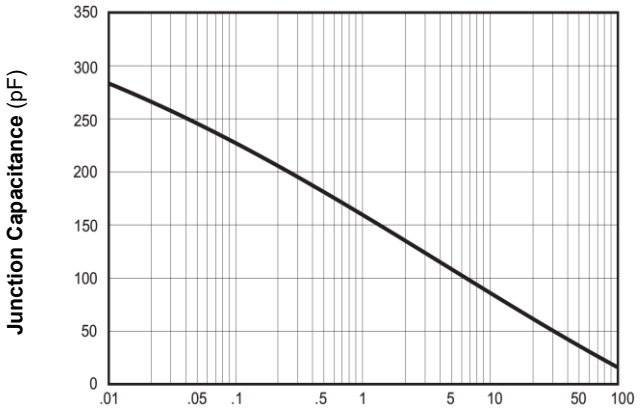
Typical Forward Current Derating Curve



Typical Reverse Characteristics



Junction Capacitance



Maximum Non-Repetitive Forward Surge Current