

Schottky Barrier Rectifier

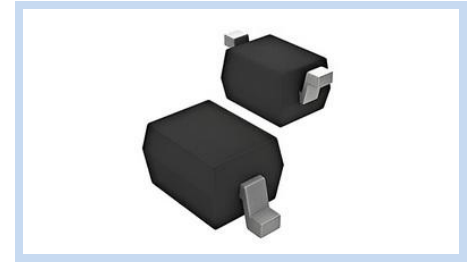
0.35A 20~40V SOD-323

SD103-WS Series

MERITEK

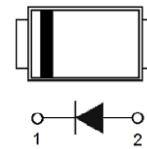
FEATURES

- Low Forward Voltage Drop Reduces Power Loss and Improves efficiency
- High Speed Switching and Fast Response
- Low Current Rectifications Capability
- Low junction Capacitance



APPLICATIONS

- Freewheeling and Output Rectification in DC-DC Converters
- Protection Circuits in Reverse Polarity Protection and Transient Suppression
- High speed Switching in RF and HF Circuits
- Signal Rectification in Low Current, Low Voltage Signal Paths



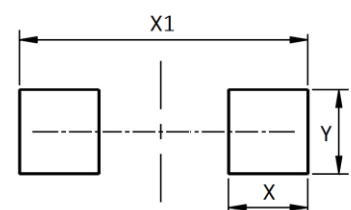
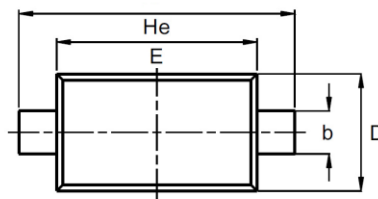
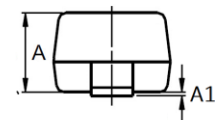
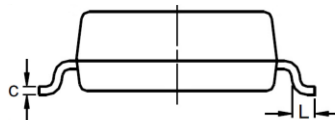
RoHS

MAXIMUM RATINGS

Parameter	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	30	20	V
Maximum RMS Voltage	V_{RMS}	28	21	14	V
Maximum DC Blocking Voltage	V_{DC}	40	30	20	V
Minimum Reverse breakdown voltage	$V_{(BR)R}$	40	30	20	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	0.35			A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	1.5			A
Maximum Forward Voltage	$I_F = 20mA$	0.37			V
	$I_F = 200mA$	0.60			
Maximum Reverse Current at Rated DC Blocking Voltage	$V_R = 30V$ for SD103AWS	5			μA
	$V_R = 20V$ for SD103BWS				
	$V_R = 10V$ for SD103CWS				
Power Dissipation	P_d	200			mW
Thermal Resistance from junction to ambient	$R_{\theta JA}$	625			$^{\circ}C/W$
Diode Junction Capacitance	$V_R = 0, f = 1MHz$	50			pF
Maximum Reverse Recovery Time	$I_R = I_F = 200mA, I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$	10			ns
Operating Junction Temperature Range	T_J	$-55 \sim +125$			$^{\circ}C$
Storage Temperature Range	T_{STG}	$-65 \sim +125$			$^{\circ}C$

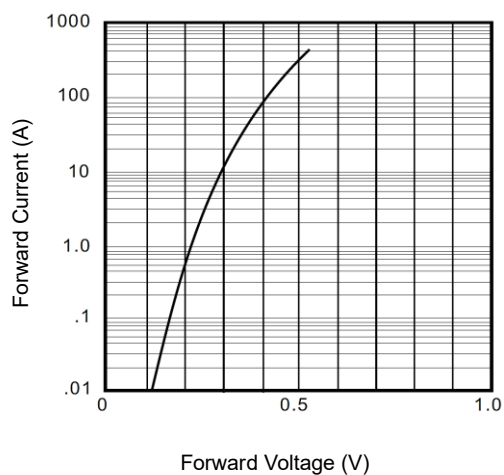
DIMENSIONS

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
X	0.63	
X1	2.86	
Y	0.83	

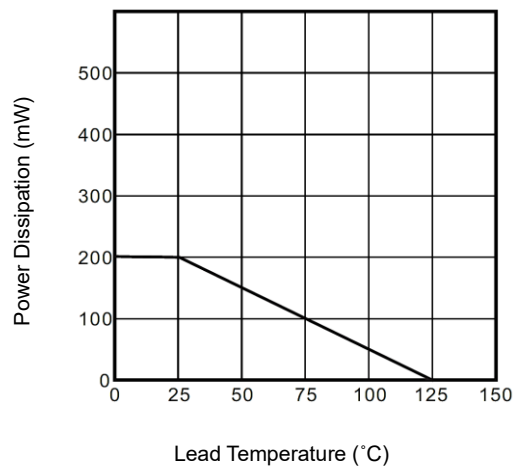


CHARACTERISTIC CURVES

Typical Forward Characteristics



Power Derating Curve



Typical Junction Capacitance

