



GP
ELECTRONICS

B1040W
40V-1A Schottky Barrier Diode

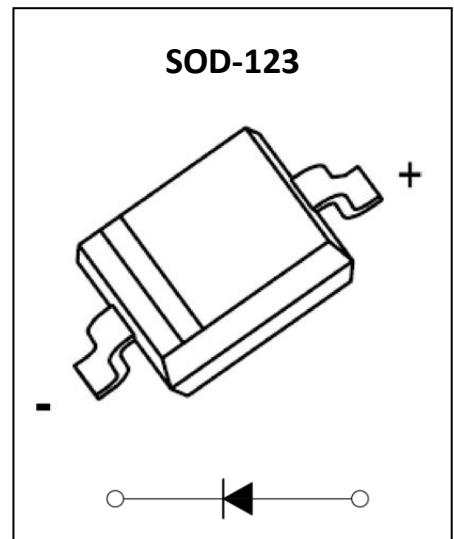
B1040W Schottky Barrier Diode

Feature

- Low Forward Voltage Drop
- Low Reverse current
- Very Small SMD Package

Application

- Low Voltage Rectification
- Switch Mode Power Supply
- High Efficiency DC/DC Conversion
- Inverse Polarity Protection
- Low Power Consumption Applications



MARKING:



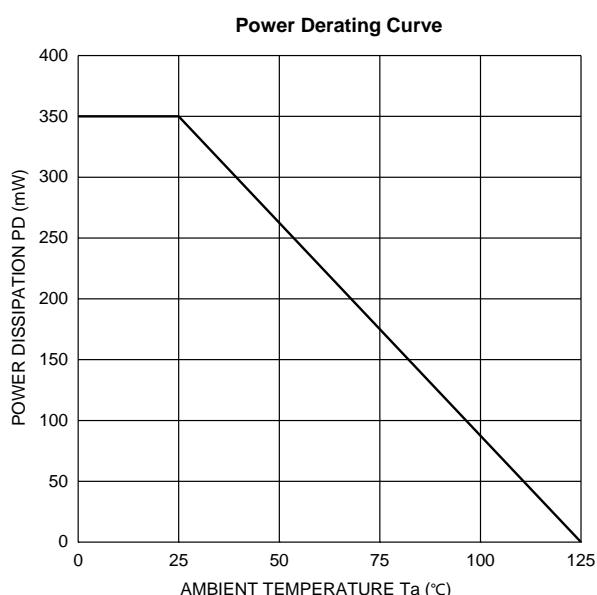
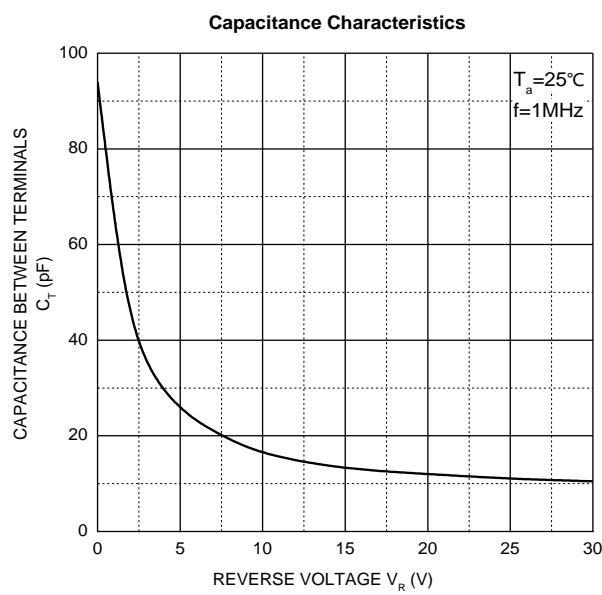
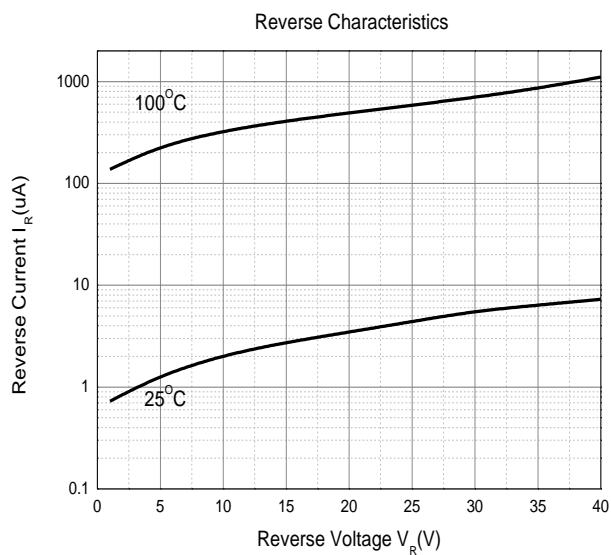
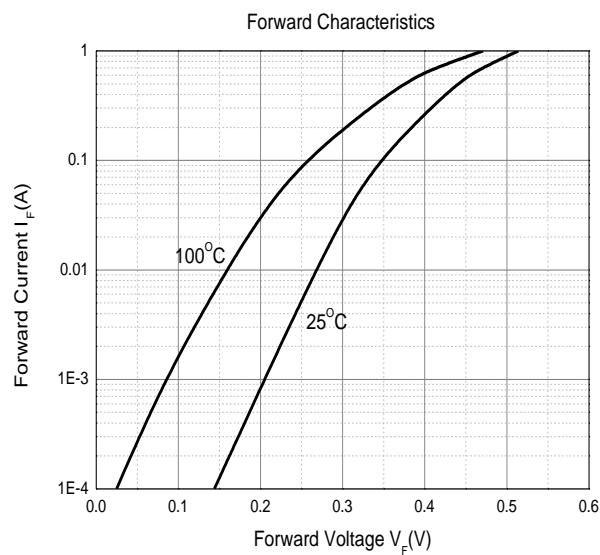
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

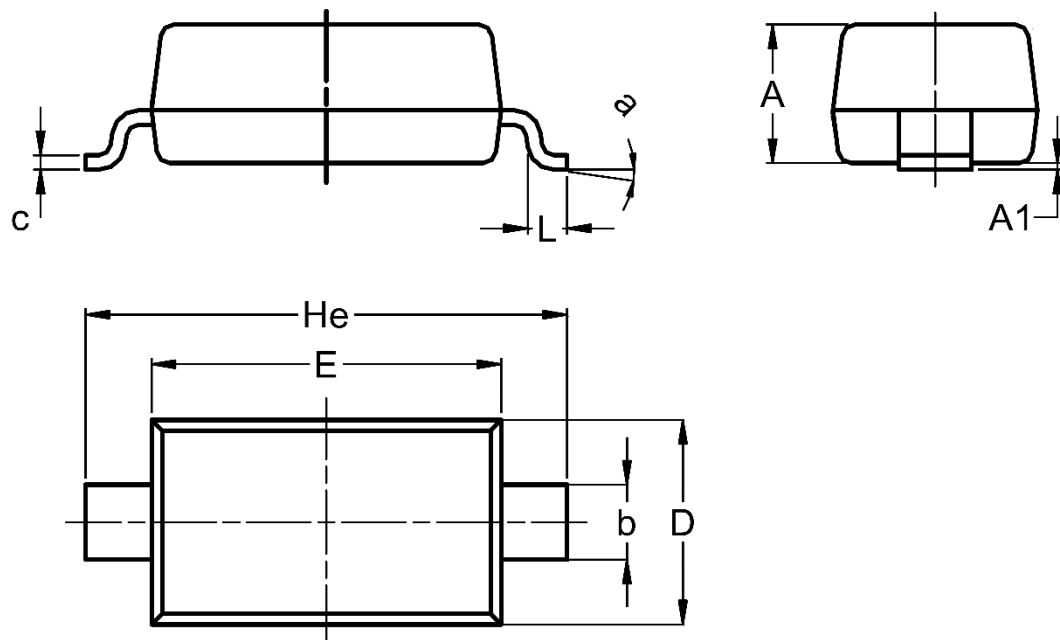
Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Mean rectifying current	I_o	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	9	A
Power Dissipation	P_D	0.35	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	285	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V_{BR}	$I_R = 250\mu\text{A}$	40			V
Reverse current	I_R	$V_R = 20\text{V}$		2	20	μA
		$V_R = 40\text{V}$		5	50	μA
Forward voltage	V_F	$I_F = 0.5\text{A}$		0.45	0.5	V
		$I_F = 0.7\text{A}$		0.48	0.54	V
		$I_F = 1\text{A}$		0.5	0.62	V
Diode capacitance	C_D	$VR=10\text{V}, f=1\text{MHz}$		18		pF

Typical Characteristics



SOD-123 Package Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.950	1.350	0.037	0.053
A1	0	0.100	0	0.004
c	0.090	0.120	0.004	0.005
D	1.500	1.700	0.059	0.067
b	0.450	0.650	0.018	0.026
He	3.450	3.850	0.136	0.152
E	2.550	2.800	0.100	0.110
L	0.200	0.400	0.008	0.016
a	0°	8°	0°	8°