



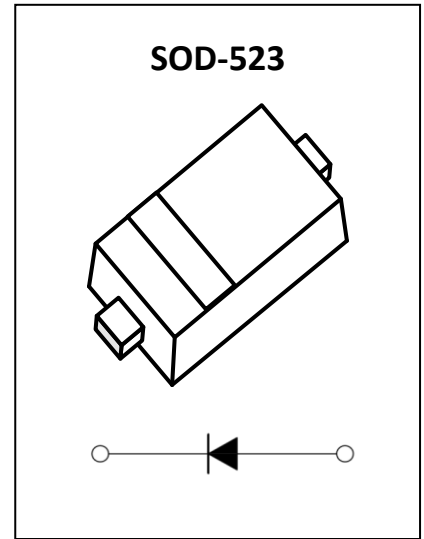
**B1040X Schottky Barrier Diode**

**Feature**

- Low Forward Voltage Drop
- Very Small SMD Package

**Application**

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



**MARKING:**



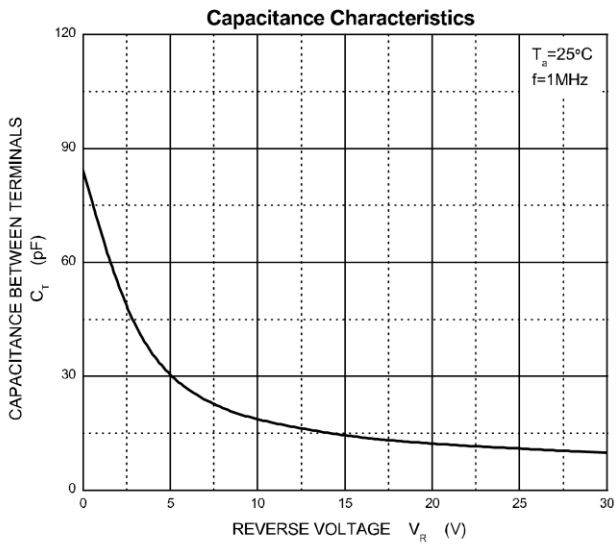
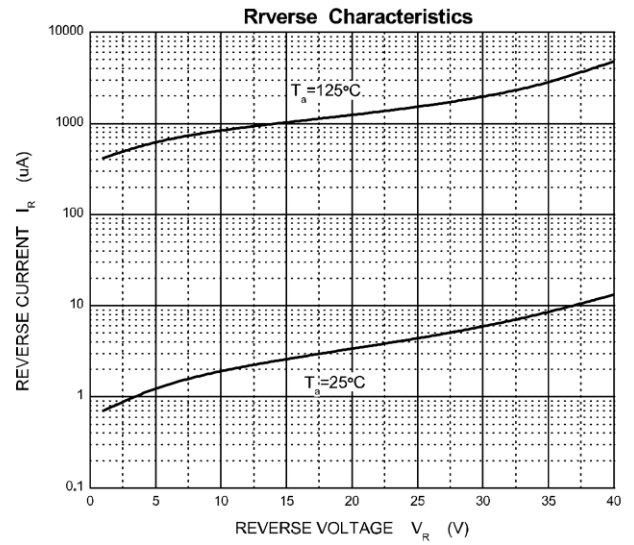
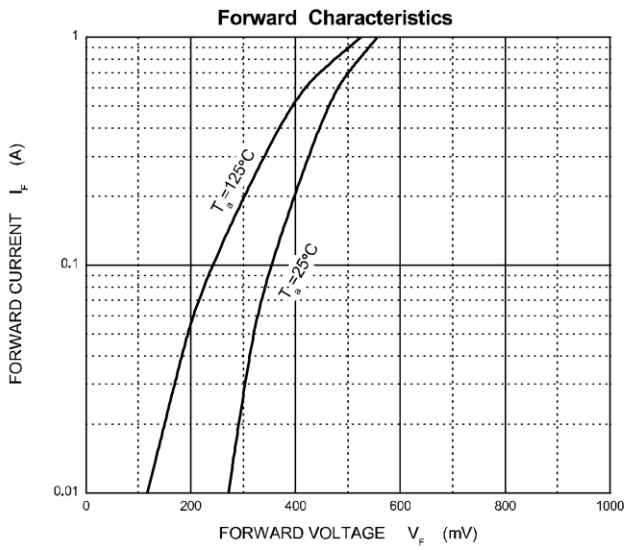
**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

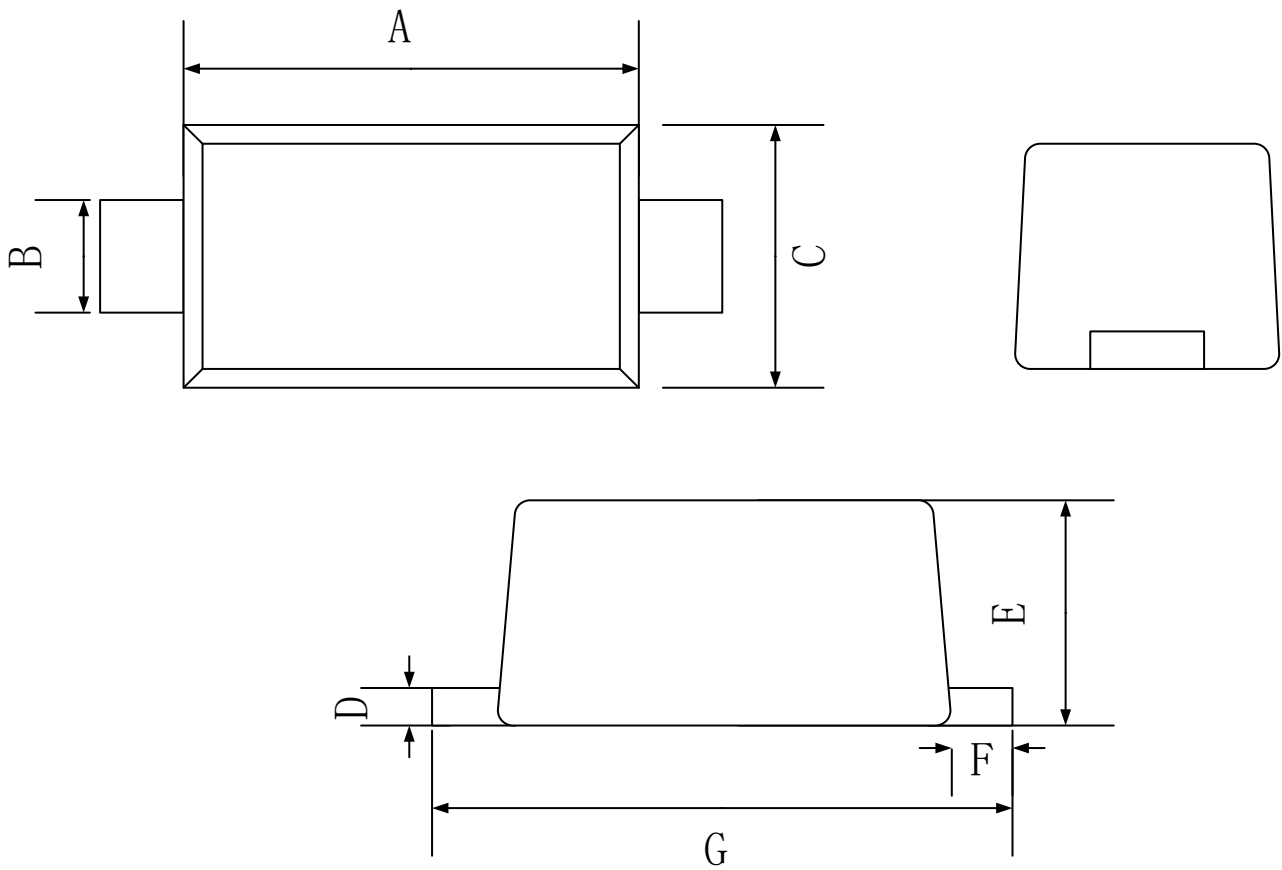
Parameter	Symbol	Value	Unit
DC reverse voltage	V <sub>R</sub>	40	V
Mean rectifying current	I <sub>O</sub>	1	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	7	A
Power Dissipation	P <sub>D</sub>	0.5	W
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	250	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise noted)**

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V <sub>BR</sub>	I <sub>R</sub> = 1mA	40			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 40V		10	40	μA
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 0.1A		0.35	0.38	V
		I <sub>F</sub> = 0.2A		0.37	0.40	V
		I <sub>F</sub> = 0.5A		0.42	0.49	V
		I <sub>F</sub> = 0.7A		0.47	0.55	V
		I <sub>F</sub> = 1A		0.51	0.61	V
Total capacitance	C <sub>tot</sub>	V <sub>R</sub> =10V, f=1MHz		19		pF

**Typical Characteristics**



**SOD-523 Package Outline Dimensions**


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	1.10	1.20	1.30
B	0.25	0.30	0.35
C	0.75	0.80	0.85
D	0.08	0.10	0.15
E	0.45	0.65	0.70
F	0.20 REF		
G	1.50	1.60	1.70