

Surface Mount Schottky Barrier Diodes

Pb Lead(Pb)-Free

Features:

- * Surface Mounted Applications
- * Metal-Semiconductor Junction with Guardring
- * Epitaxial Construction
- * Low Leakage Current
- * High Current Capability
- * Plastic Material Has UL Flammability Classification 94V-0
- * For Use in, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

Mechanical Data

- * Case : Molded Plastic, SOD-323F(0805)
- * Terminals : Solder Plated, Solderable per ML-STD-750 Method 2026
- * Polarity : Indicated By Cathode Band
- * Shipped in 8mm Tape, 3000 Pcs per 7 Inch Reel
- * Weight: 0.0085 grams

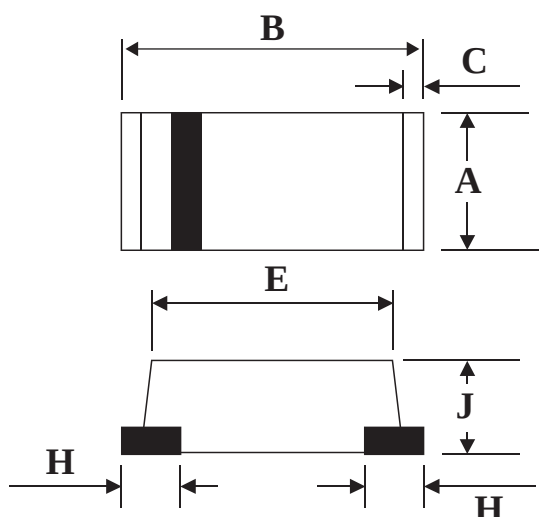
REVERSE VOLTAGE
20-60Volts
FORWARD CURRENT
1.0 Ampere



SOD-323F
(0805)

SOD-323F Outline Dimension

unit:mm



SOD-323F		
Dim	Min	Max
A	1.15	1.35
B	2.30	2.70
C	-	0.30(TYP)
E	1.80	2.20
H	-	0.90(TYP)
J	0.90	1.10

Maximum Ratings and Electrical Characteristics

Rating 25 °C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	B120N	B140N	B160N	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	20	40	60	V
Maximum RMS Voltage	VRMS	14	28	42	V
Maximum DC Blocking Voltage	VDC	20	40	60	V
Maximum Average Forward (FIG1)	I _F (AV)	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30			A
Maximum Instantaneous @ TA=25 °C	V _F	0.55		0.70	V
Maximum DC Reverse Current @TA=25 °C At Rated DC Blocking Voltage @TA=125 °C	I _R	0.5 10			mA
Typical Junction Capacitance (1)	C _J	120(TYP)			pF
Typical Thermal Resistance (2)	R _{θJC}	90(TYP)			°C/W
Operating Temperature Range	T _J	-55 to+125			°C
Storage Temperature Range	T _{STG}	-55 to+150			°C

NOTES:

1. Measured at 1.0MHz applied reverse voltage of 4.0V DC.
2. Thermal Resistance Junction to case.

Device Marking

B120N=12 B140N=14 B160N=16

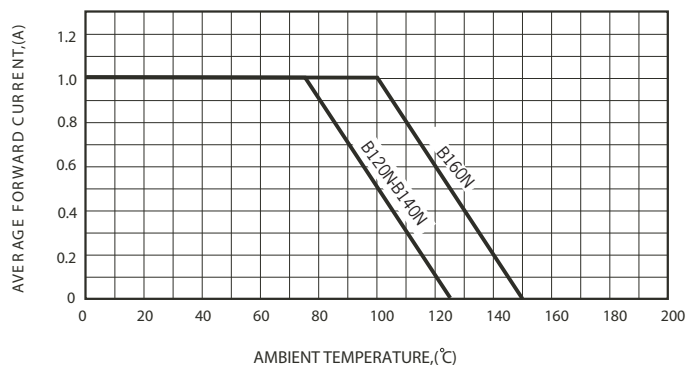


FIG.1 Typical Forward Current Derating Curve

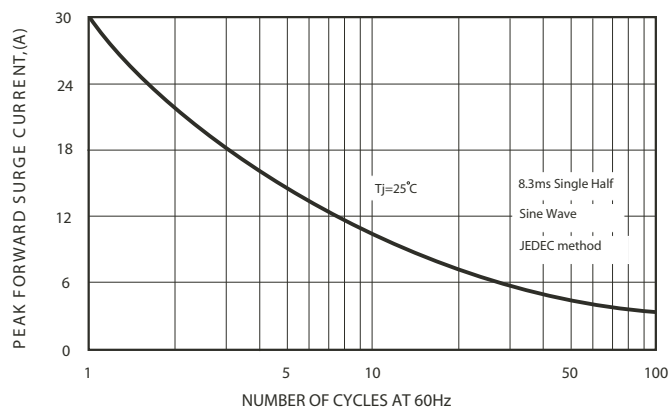


FIG.3 Maximum Non-Repetitive Forward Surge Current

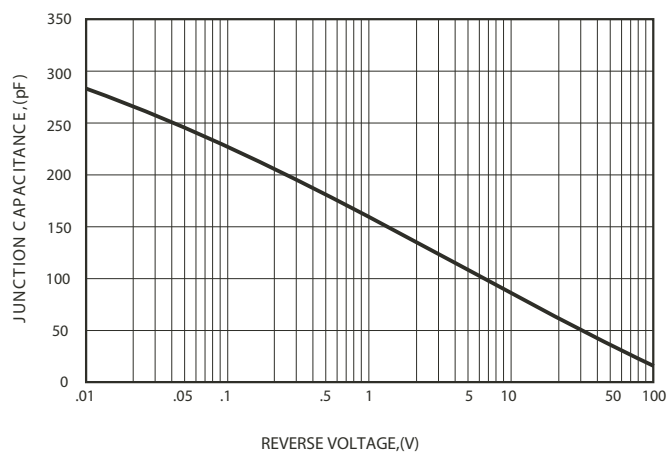


FIG.4 Typical Junction Capacitance

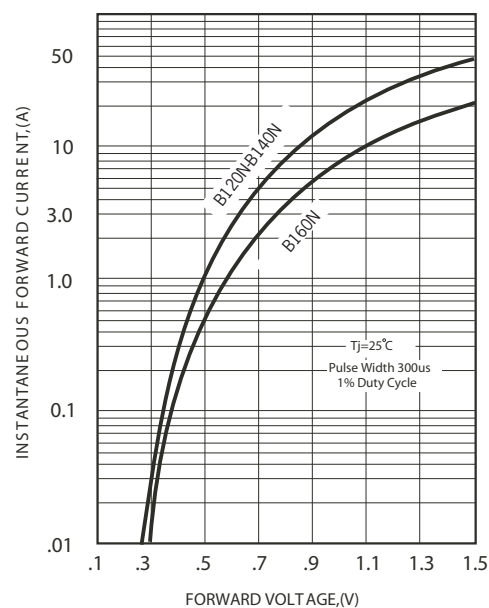


FIG.2 Typical Forward Characteristics

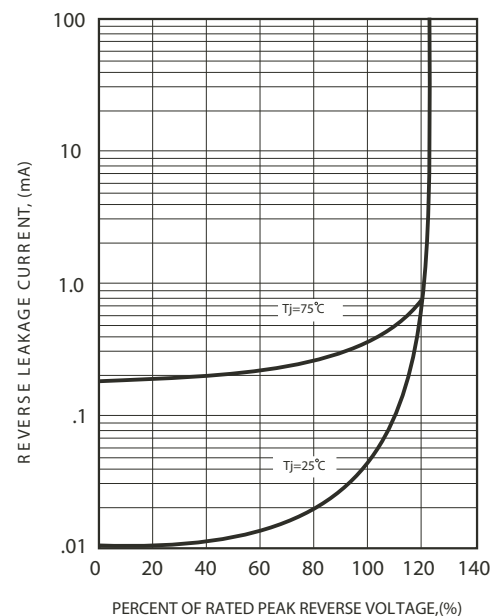


FIG.5 Typical Reverse Characteristics