

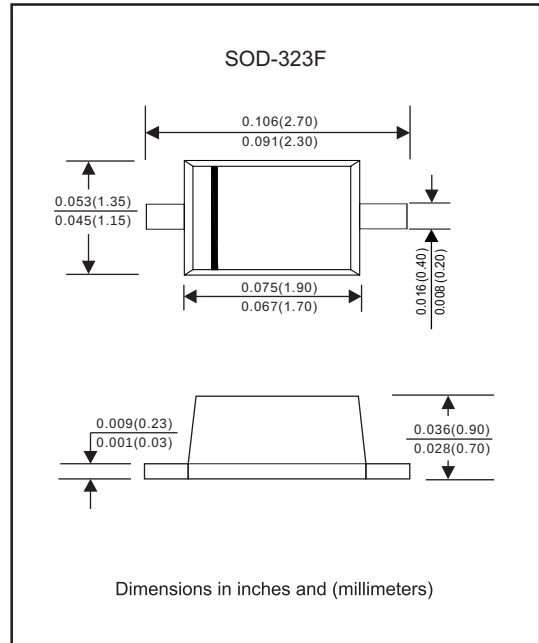
Features

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Compliant to Halogen-free

Mechanical data

- Case : SOD-323F
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			1	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			10	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^{\circ}\text{C}$	I_R			1	mA
Diode junction capacitance	$V_R = 4\text{ V}$, $f = 1\text{MHz}$	C_J		120		pF
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^{\circ}\text{C}$)
B5819WSF	40	28	40	0.6	-40 to +125

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=1.0\text{A}$

Rating and characteristic curves

Fig.1 Forward Current Derating Curve

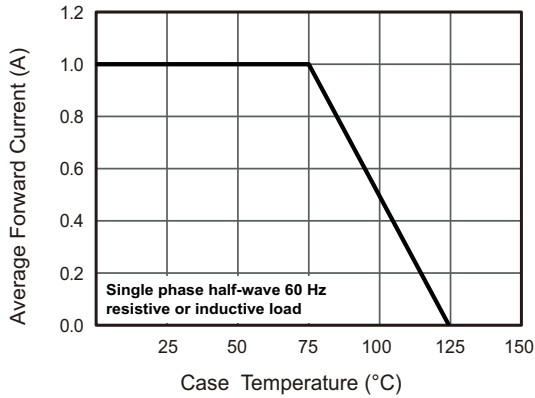


Fig.2 Typical Reverse Characteristics

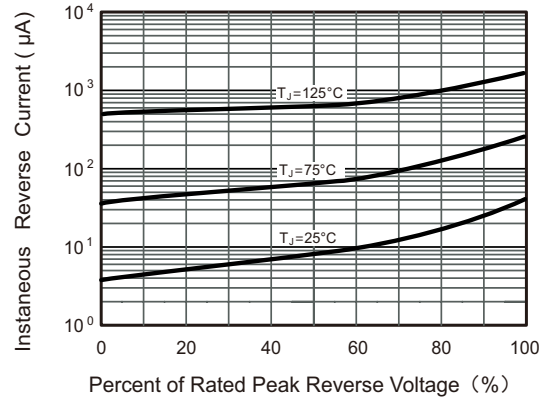


Fig.3 Typical Forward Characteristic

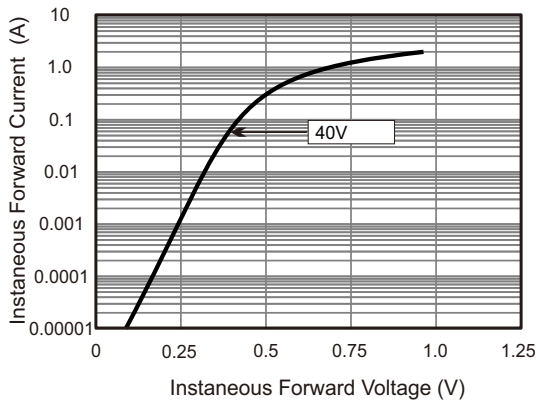


Fig.4 Typical Junction Capacitance

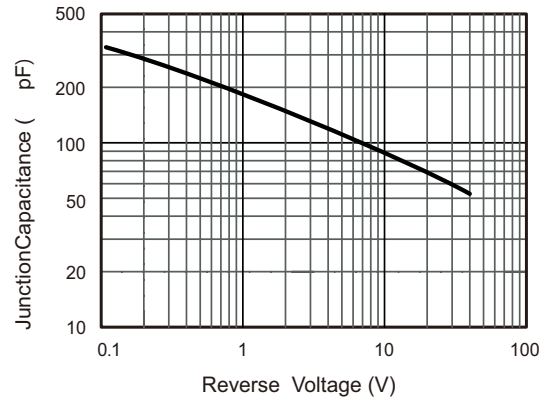
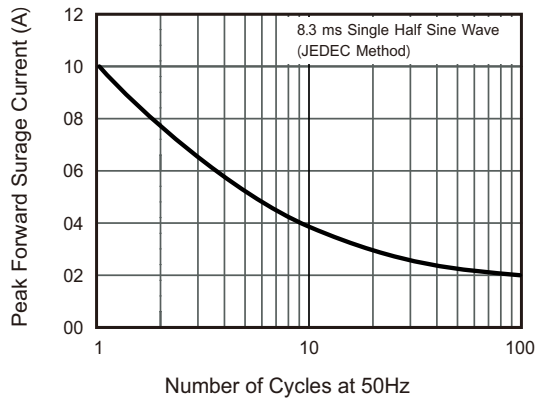


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



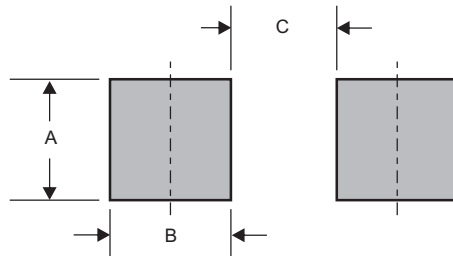
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
B5819WSF	SL

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323F	0.020 (0.50)	0.027 (0.68)	0.053 (1.34)