B5819WS-T

1A Small Signal Schottky Barrier Diode - 40V

Features

- V_{RRM} 40V
- I_{FAV} 1A
- Compliant to Halogen-free

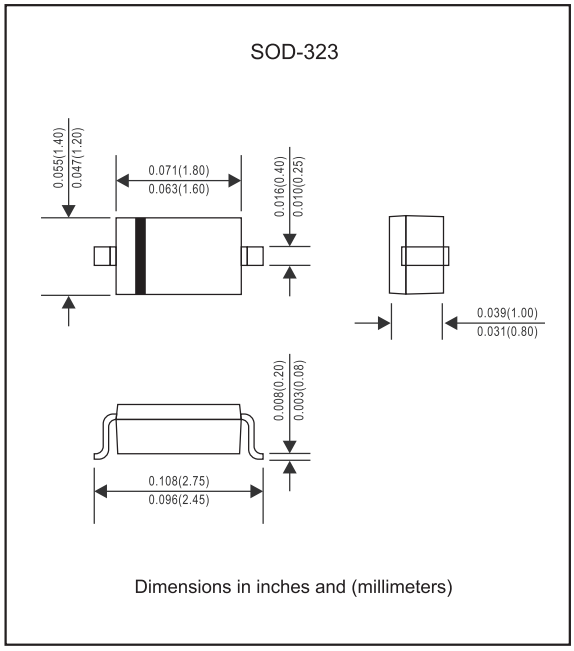
Applications

- Use as rectifiers in low-voltage,high-frequency inverters

Mechanical Data

- **Epoxy**: UL94-V0 rated flame retardant
- **Case**: SOD-323
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	MAX.	UNIT
Forward rectified current		I_O		1	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}		20	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R		40	μA
Power Dissipation		P_{tot}		250	mW
Thermal Resistance	Junction to Ambient	$R_{\theta JA}$		400	°C/W
Diode junction capacitance	V_R = 4 V, f = 1MHz	C_J		120	pF
Reverse Recovery Time	I_F = I_R = 10mA, Irr =1mA, R_L =100Ω	t_{rr}		40	ns
Storage temperature		T_{STG}	-55	+150	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
B5819WS-T	40	28	40	0.6	-55 to +150

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage, I_R = 1mA

*4 Maximum forward voltage@I_F=1.0A

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Characteristics (Typical)

Fig.1:P_D-T_A

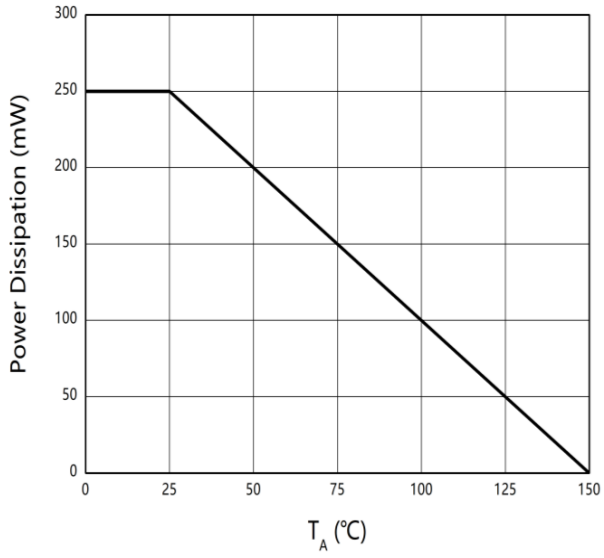


Fig.2: Junction Capacitance

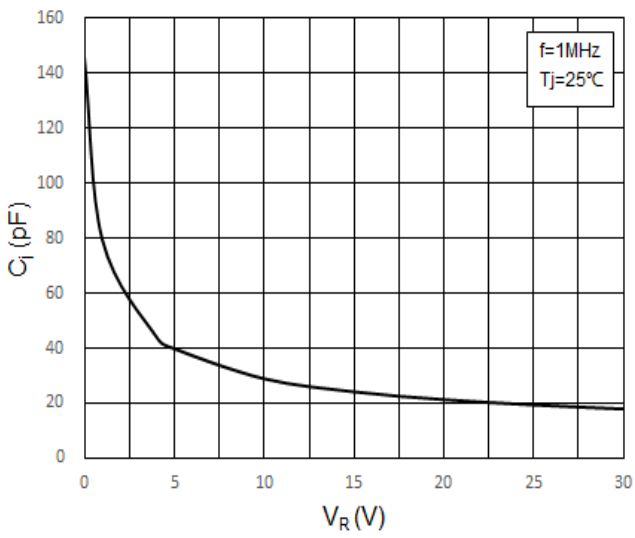


Fig3. Forward characteristics

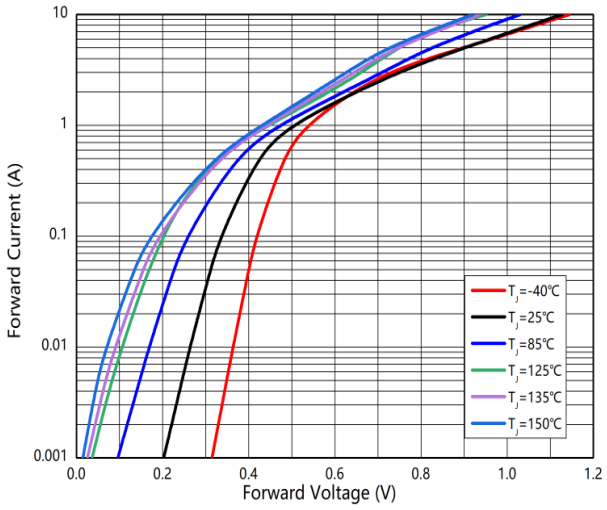
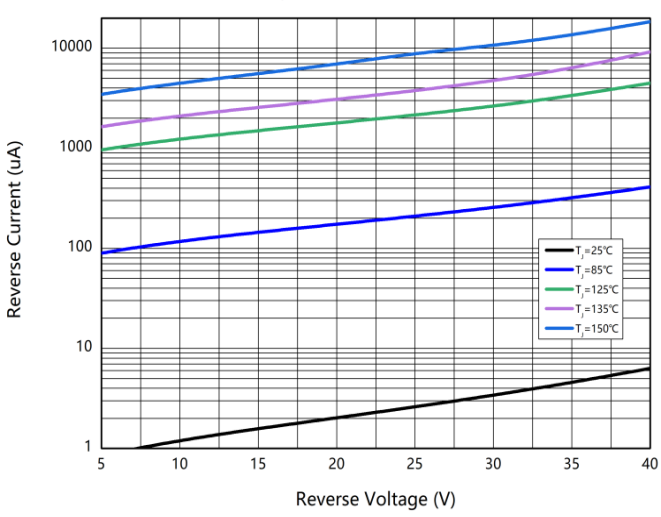


Fig4. Reverse characteristics



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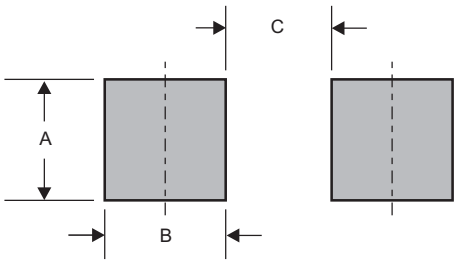
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
B5819WS-T	SL

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323	0.027 (0.686)	0.024 (0.599)	0.074 (1.88)