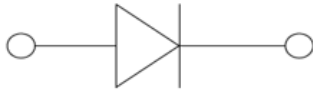


Small Signal Schottky Rectifier



SOD323

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{RRM} 30V/40V
- I_{FAV} 1A
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

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

Mechanical Data

- **Case:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE	
Repetitive peak reverse voltage	V_{RRM}	V		B5818WSHQ	30
				B5819WSHQ	40
Reverse voltage	V_R	V	$I_R=1\text{mA}$	B5818WSHQ	30
				B5819WSHQ	40
Average Forward Current	I_{FAV}	A		1	
Peak Forward Surge Current	I_{FSM}	A	8.3ms, half sine	20	
Power Dissipation	$P_{tot t}^{(1)}$	mW		250	
Thermal Resistance Junction to Ambient	$R_{thJA t}^{(1)}$	$^\circ\text{C/W}$		500	
Junction Temperature	T_J	$^\circ\text{C}$		-55 to +150	
Storage Temperature Range	T_{slg}	$^\circ\text{C}$		-55 to +150	

(1) Device mounted on an FR4 PCB (15 x 20 mm), single-sided copper (8 x 8 mm), tin-plated



B5818WSHQ THRU B5819WSHQ

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	MIN	MAX
Forward Voltage	V _F	V	I _F =1A	B5818WSHQ		0.55
				B5819WSHQ		0.6
			I _F =3A	B5818WSHQ		0.875
				B5819WSHQ		0.9
Reverse Leakage Current	I _R	uA	V _R =30V	B5818WSHQ		40
			V _R =40V	B5819WSHQ		40
Reverse Breakdown Voltage	V _{BR}	V	I _R =1mA	B5818WSHQ	30	
				B5819WSHQ	40	
Junction Capacitance	C _J	pF	V _R =4V, f =1MHz			120
Reverse Recovery Time	t _{rr}	ns	I _F =I _R =10mA, I _{rr} =1mA, R _L =100Ω			40

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B5818WSHQ THRU B5819WSHQ	F2	Approximate 0.0045	3000	30000	120000	7" reel



B5818WSHQ THRU B5819WSHQ

■ Characteristics (Typical)

Fig.1: $P_D - T_A$

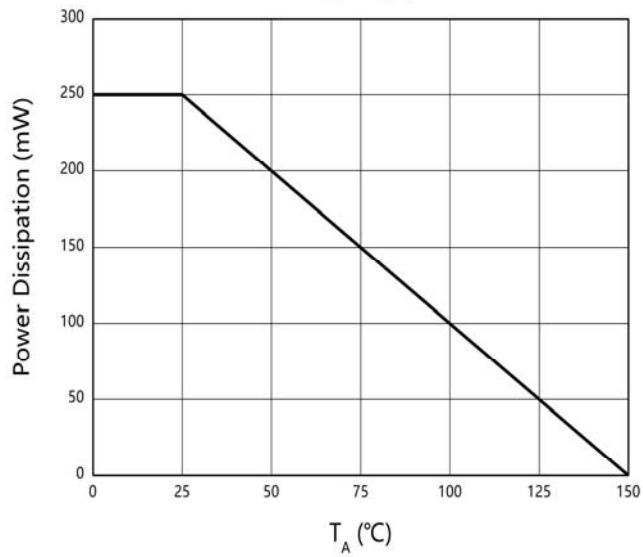


Fig.2: Junction Capacitance

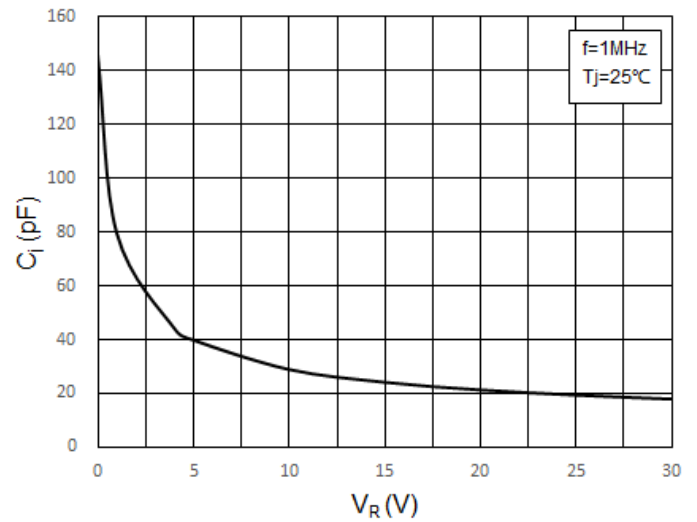


Fig3. Forward characteristics

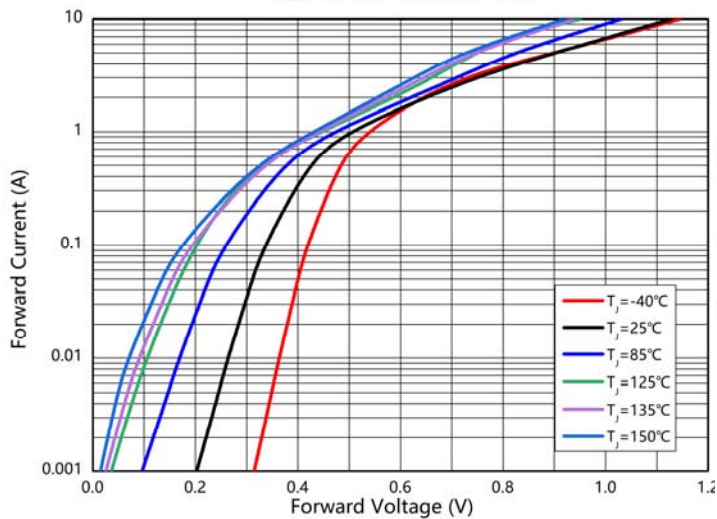
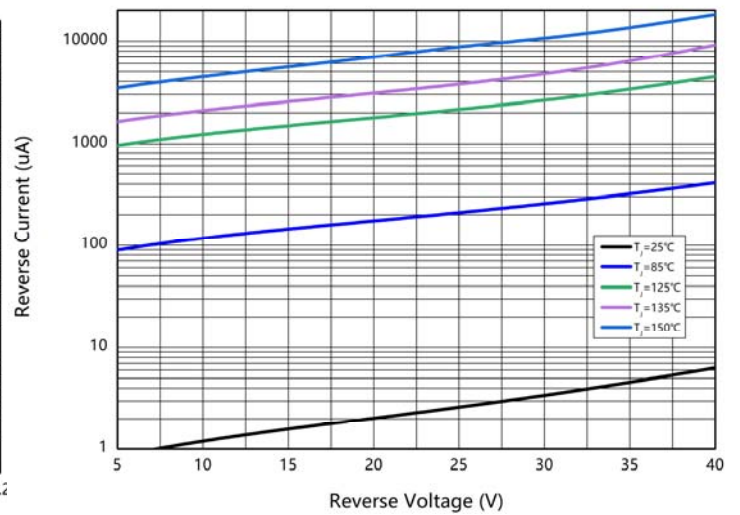


Fig4. Reverse characteristics

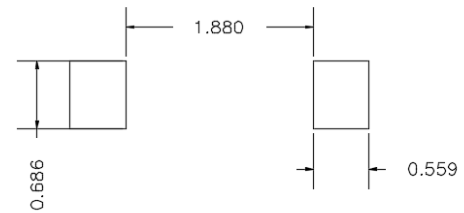
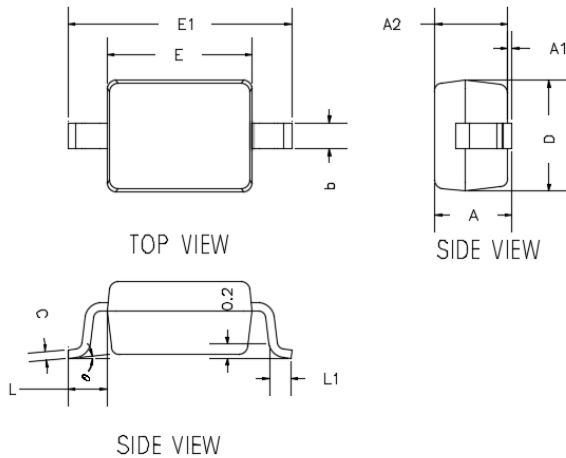




B5818WSHQ THRU B5819WSHQ

■ Outline Dimensions

SOD-323



UNIT: mm

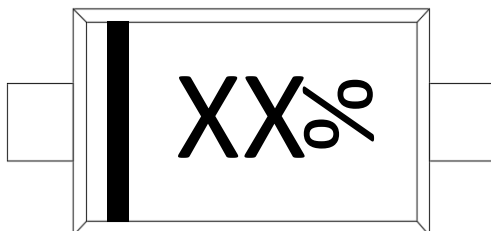
SUGGESTED SOLDER PAD LAYOUT

NOTE:

1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2. TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
3. THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
θ	0°	8°	0°	8°

■ Marking Information



	Marking
B5818WSHQ	SK
B5819WSHQ	SL

Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black
4. XX is Marking code ; % is a date code, rotated 90° counterclockwise

*Date Code vary depending upon production date



B5818WSHQ THRU B5819WSHQ

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, life-sustaining, or military. Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.