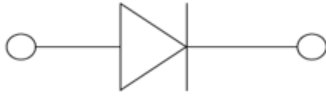


## Small Singal Schottky Rectifier



**SOD323**

### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- $V_R$  20V/30V/40V
- $I_{FAV}$  1A
- Part no. with suffix "Q" means AEC-Q101 qualified

### Applications

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

### Mechanical Data

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

	Marking
B5817WSQ	SJ
B5818WSQ	SK
B5819WSQ	SL

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE	
Reverse Voltage	$V_R$	V		B5817WSQ	20
				B5818WSQ	30
				B5819WSQ	40
Average Forward Current	$I_{FAV}$	A		1	
Peak Forward Surge Current	$I_{FSM}$	A	8.3ms, half sine	10	
Power Dissipation	$P_{tot}$	mW		250	
Thermal Resistance Junction to Ambient	$R_{thJA}$	°C/W		400	
Junction Temperature	$T_j$	°C		-55 to +125	
Storage Temperature Range	$T_{stg}$	°C		-55 to +150	



## B5817WSQ THRU B5819WSQ

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	MIN	MAX
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	V	I <sub>R</sub> =1mA	B5817WSQ	20	-
				B5818WSQ	30	-
				B5819WSQ	40	-
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =1A	B5817WSQ		0.45
				B5818WSQ		0.55
				B5819WSQ		0.60
			I <sub>F</sub> =3A	B5817WSQ		0.75
				B5818WSQ		0.875
				B5819WSQ		0.90
Reverse Leakage Current	I <sub>R</sub>	uA	V <sub>R</sub> =20V	B5817WSQ		200
			V <sub>R</sub> =30V	B5818WSQ		40
			V <sub>R</sub> =40V	B5819WSQ		40
Junction Capacitance	C <sub>j</sub>	pF	V <sub>R</sub> =4V, f=1MHz			120

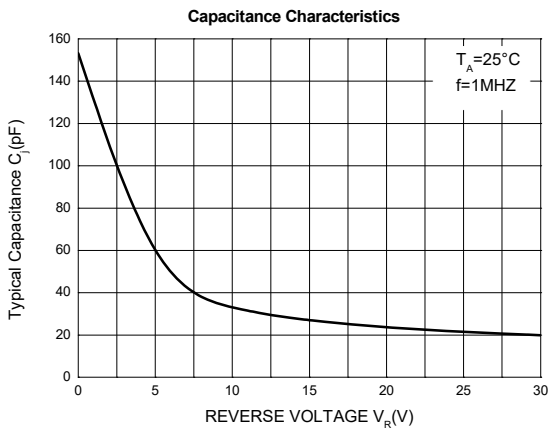
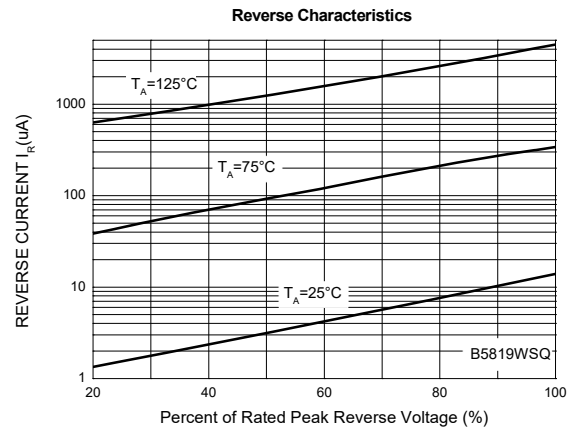
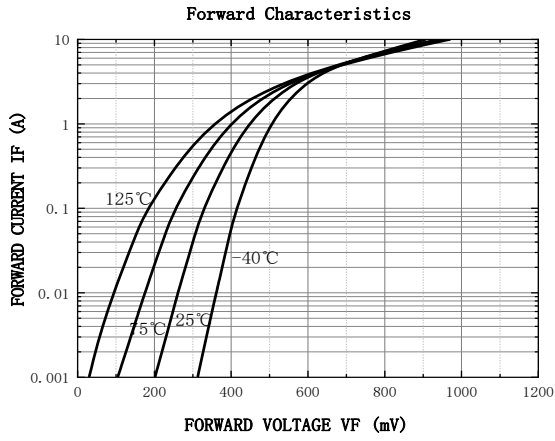
### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
B5817WSQ THRU B5819WSQ	F2	Approximate 0.045	3000	30000	120000	7" reel



# B5817WSQ THRU B5819WSQ

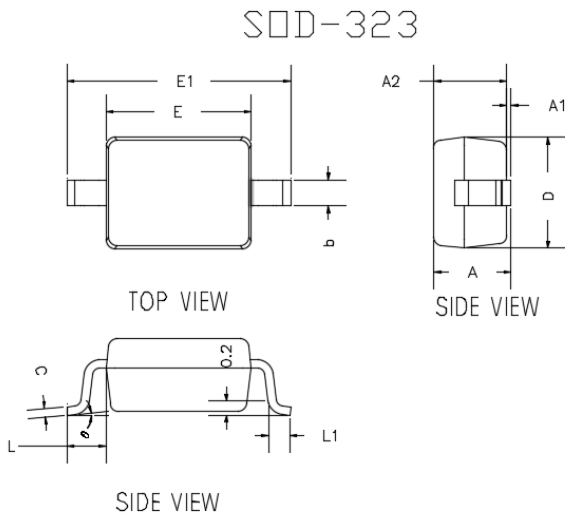
## ■ Characteristics(Typical)





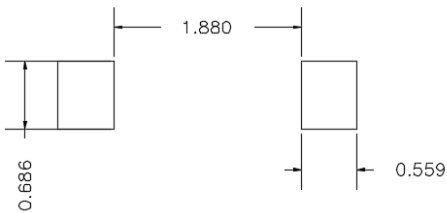
# B5817WSQ THRU B5819WSQ

## ■ Outline Dimensions



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°

## ■ Soldering Footprint



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT



## B5817WSQ THRU B5819WSQ

---

### 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, lifesustaining, 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.