

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
SB5817WSQ	SJ
SB5818WSQ	SK
SB5819WSQ	SL



SOD323



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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE	
Reverse Voltage	V_R	V		SB5817WSQ	20
				SB5818WSQ	30
				SB5819WSQ	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	

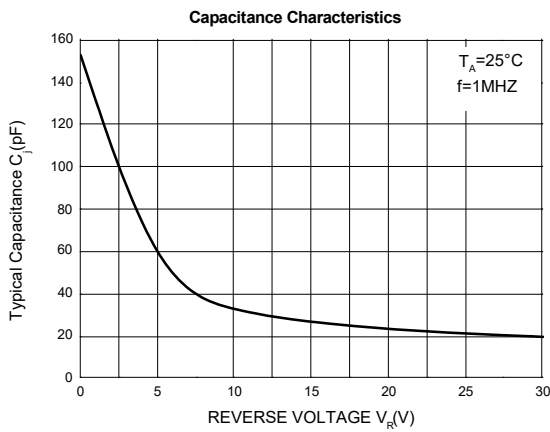
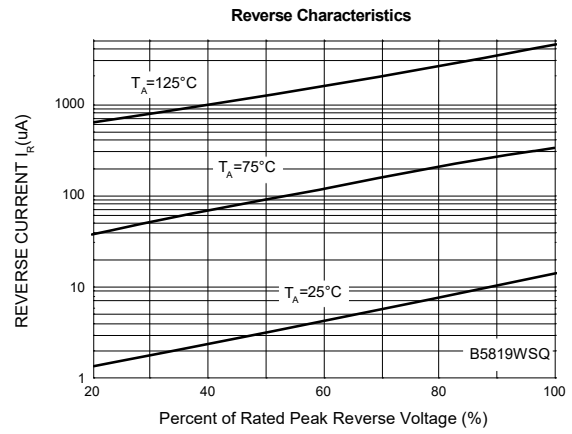
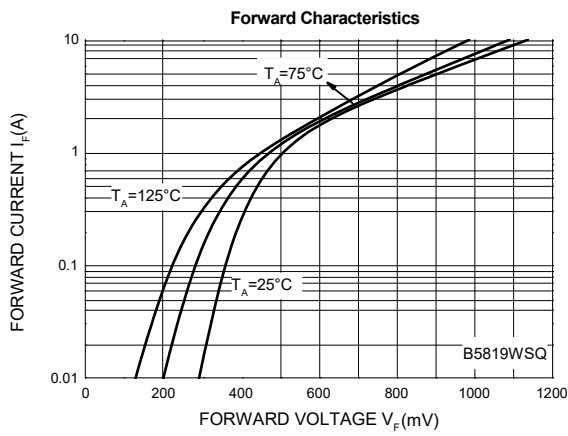
■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	PART	MIN	MAX
Reverse Breakdown Voltage	$V_{(BR)R}$	V	$I_R=1\text{mA}$	SB5817WSQ	20	-
				SB5818WSQ	30	-
				SB5819WSQ	40	-
Forward Voltage	V_F	V	$I_F=1\text{A}$	SB5817WSQ		0.45
				SB5818WSQ		0.55
				SB5819WSQ		0.60
			$I_F=3\text{A}$	SB5817WSQ		0.75
				SB5818WSQ		0.875
				SB5819WSQ		0.90
Reverse Leakage Current	I_R	uA	$V_R=20\text{V}$	SB5817WSQ		200
			$V_R=30\text{V}$	SB5818WSQ		40
			$V_R=40\text{V}$	SB5819WSQ		40
Junction Capacitance	C_j	pF	$V_R=4\text{V}, f=1\text{MHz}$			120

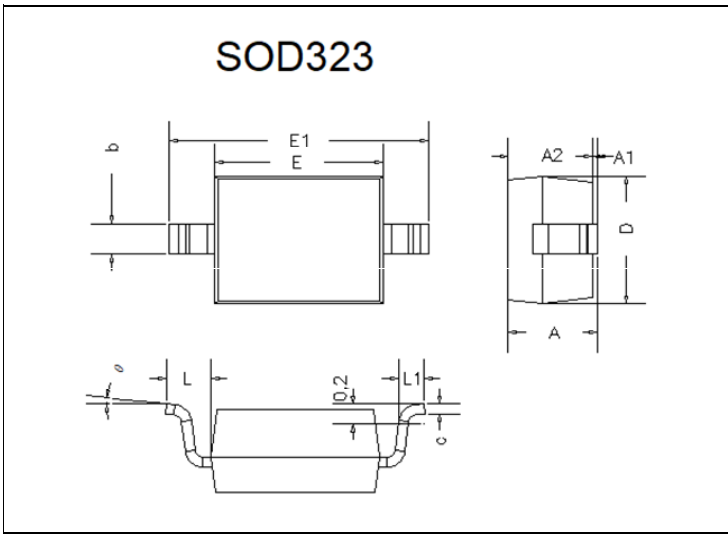
■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SB5817WSQ THRU SB5819WSQ	F2	Approximate 0.045	3000	30000	120000	7" reel

■ Characteristics(Typical)

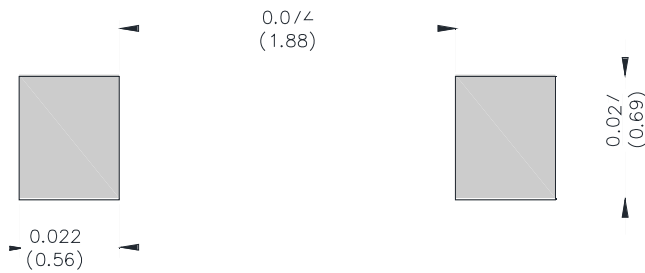


■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	-	0.039	-	1.00	
A1	0.000	0.004	0.00	0.10	
A2	0.031	0.035	0.80	0.90	
b	0.010	0.016	0.25	0.40	
c	0.003	0.007	0.08	0.17	
D	0.047	0.055	1.20	1.40	
E	0.063	0.071	1.60	1.80	
E1	0.098	0.106	2.50	2.70	
L	0.019REF		0.475REF		
L1	0.008	0.016	0.20	0.40	
θ	0°	8°	0°	8°	

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$

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