

BRB5817WSQ-BRB5819WSQ

Rev.A Sep.-2022

/ Descriptions

SOD-323

Schottky Diode in a SOD-323 Plastic Package.

/ Features

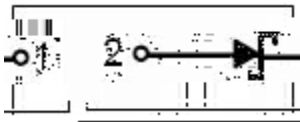
AEC-Q101

Low positive pressure drop, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

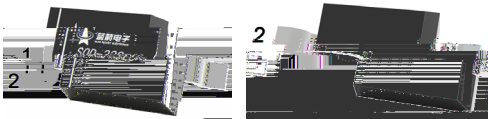
/ Applications

General purpose, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1:Cathode

PIN2:Anode

/ Marking

Model	BRB5817WSQ	BRB5818WSQ	BRB5819WSQ
Marking	QSJ	QSK	QSL

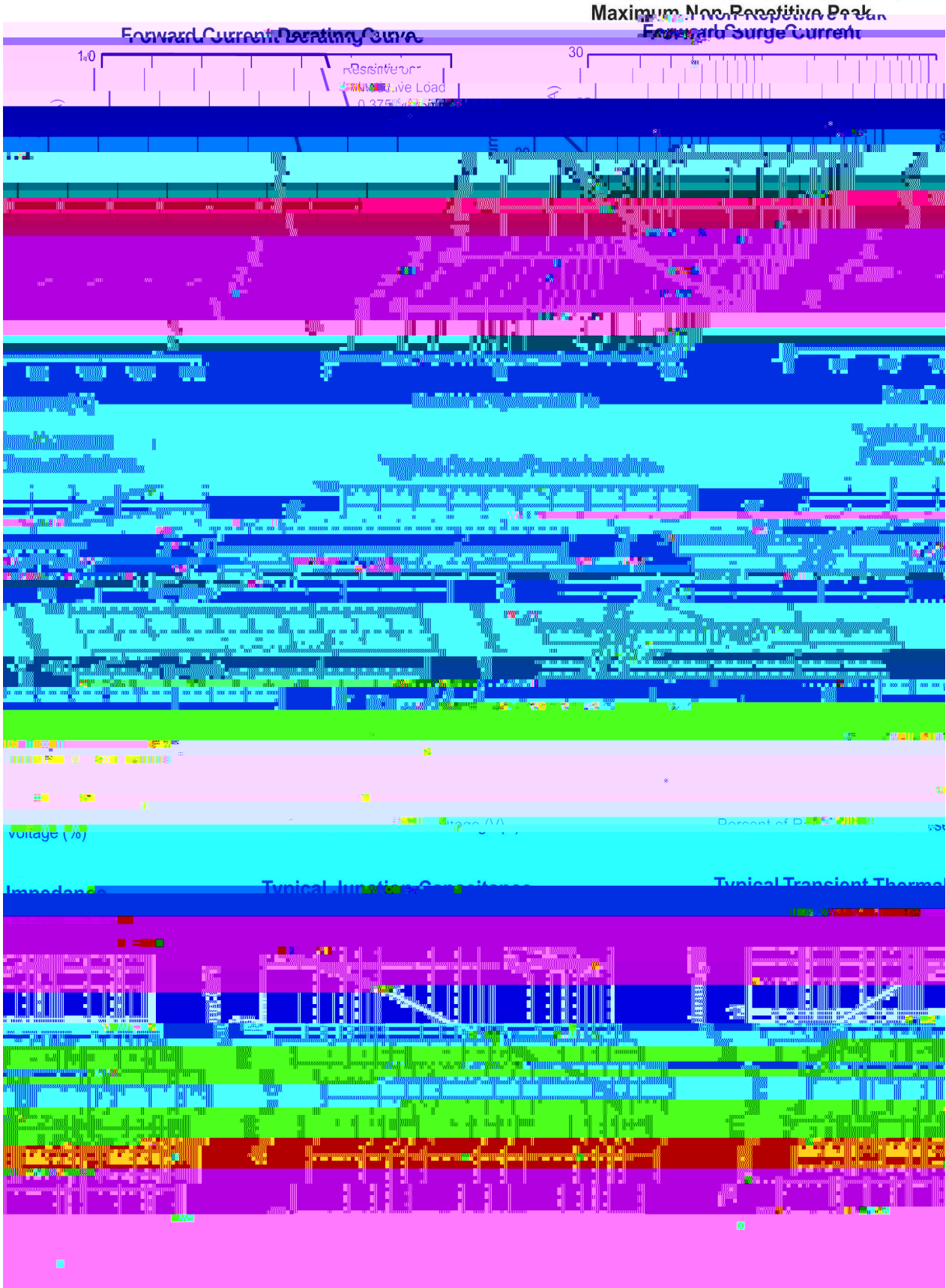
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating			Unit
		BRB5817WSQ	BRB5818WSQ	BRB5819WSQ	
Peak Repetitive Reverse Voltage , Working Peak Reverse Voltage, DC Reverse Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R_{RMS}}$	14	21	28	V
Average Rectified Forward Current	I_F	1			A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	25			A
Power Dissipation	P_d	200			mW
Typical Thermal Resistance Junction to Ambient	R_{JA}	500			/W
Junction and Storage Temperature Range	T_J, T_{stg}	-65 to 125			

/ Electrical Characteristics(Ta=25)

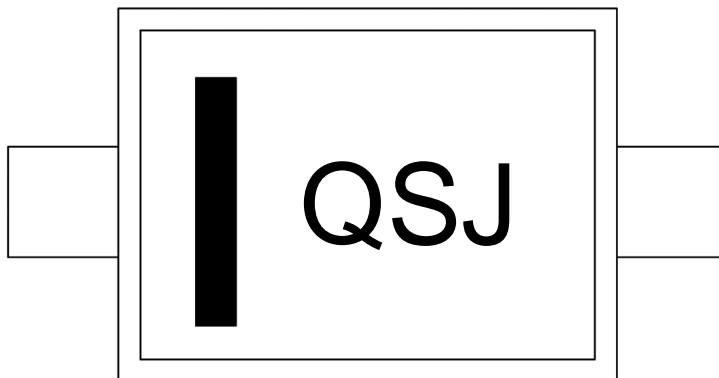
Parameter	Symbol	Test Conditions	Rating		Unit	
			MIN	MAX		
Reverse breakdown voltage	$V_{(BR)}$	$I_R=1mA$	BRB5817WSQ	20	V	
			BRB5818WSQ	30		
			BRB5819WSQ	40		
Peak Forward Voltage	V_{FM}	$I_F=0.1A$	BRB5817WSQ		0.32	V
			BRB5818WSQ		0.35	
			BRB5819WSQ		0.4	
		$I_F=1A$	BRB5817WSQ		0.45	
			BRB5818WSQ		0.55	
			BRB5819WSQ		0.60	
		$I_F=3A$ ($t<5\mu s$)	BRB5817WSQ		0.75	
			BRB5818WSQ		0.875	
			BRB5819WSQ		0.90	
Instantaneous Reverse Current	I_{RM}	$V_R=V_{RWM}$	1		mA	
Junction Capacitance	C_J	$V_R=4V$ $f=1.0MHz$	120		pF	

/ Elec76Q Characteristic Curve



BRB5817WSQ-BRB5819WSQ
Rev.A Sep.-2022

/ Marking Instructions



Q

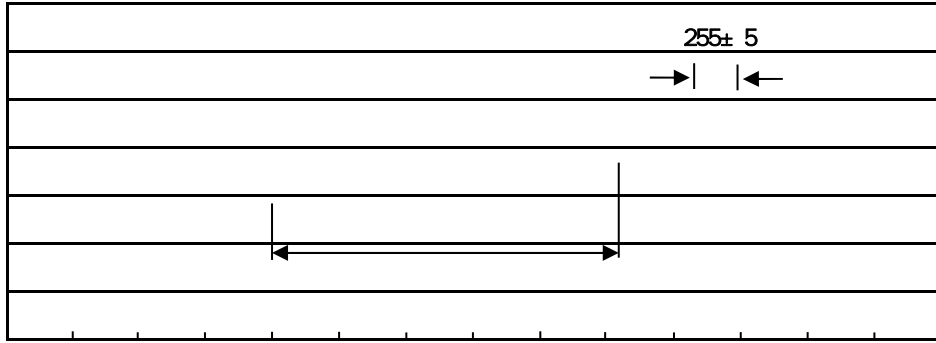
SJ

Note:

Q: Automobile halogen-free product Code

SJ: Product Type

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1 150 200 60 120sec; 1.Preheating:150~200 , Time:60~120sec.
- 2 255±5 5±0.5sec; 2.Peak Temp.:255±5 , Duration:5±0.5sec.
- 3 2 10 /sec. 3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOD-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices