

BRB5817WSQ-BRB5819WSQ

Rev.A Sep.-2022

/ Descriptions

SOD-323

Schottky Diode in a SOD-323 Plastic Package.

/ Features

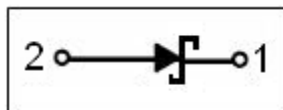
AEC-Q101

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

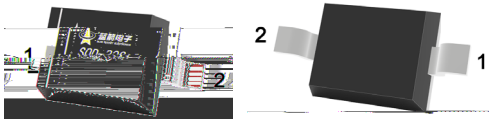
/ Applications

General purpose, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1:Cathode

PIN2:Anode

/ Marking

Model	BRB5817WSQ	BRB5818WSQ	BRB5819WSQ
Marking	Q SJ	Q SK	Q SL

BRB5817WSQ-BRB5819WSQ

Rev.A Sep.-2022

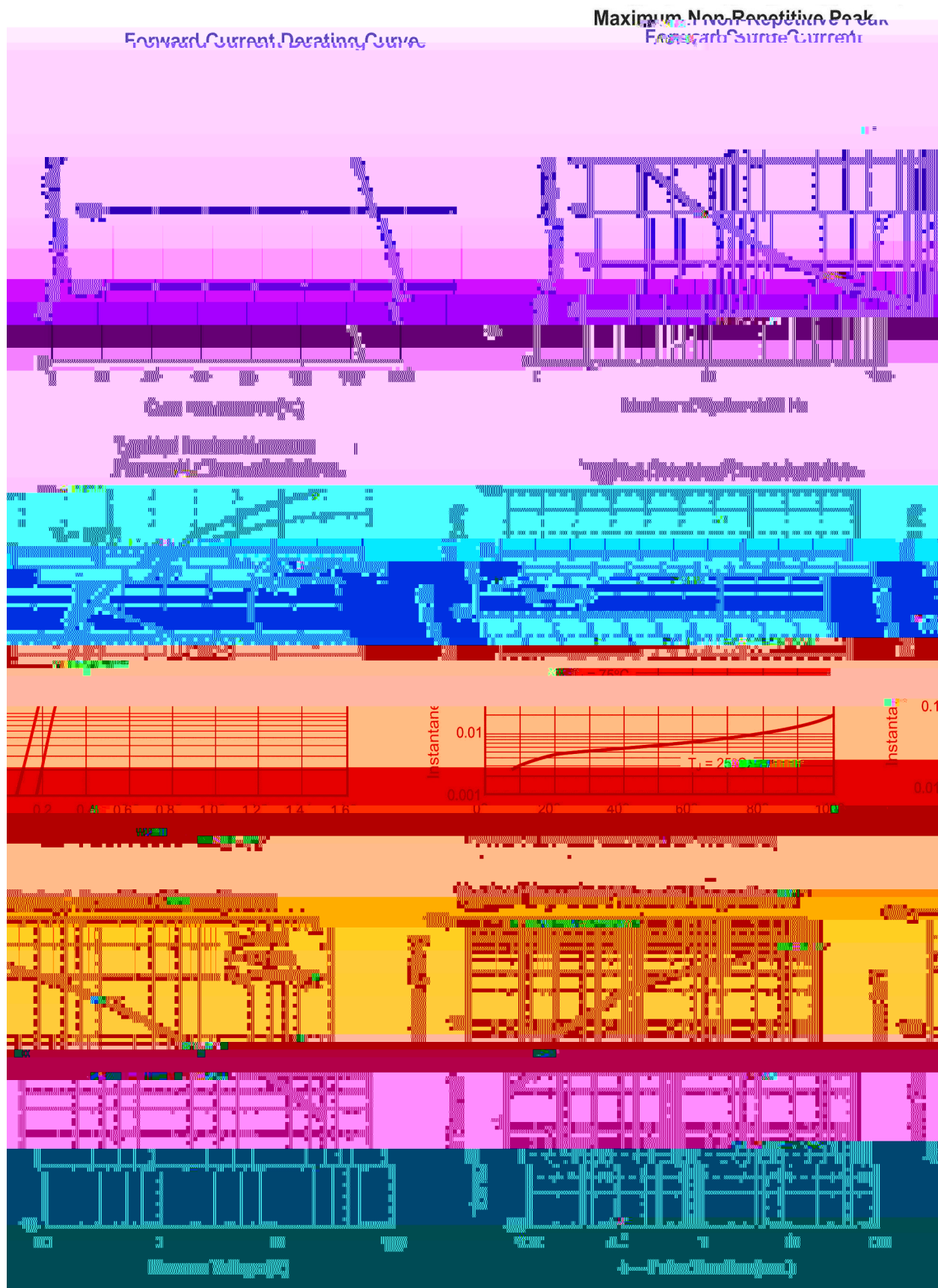


DATA SHEET

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					

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		V
			BRB5818WSQ	0.32	
			BRB5819WSQ	0.35	
		$I_F=1A$	BRB5817WSQ	0.4	
			BRB5818WSQ	0.45	
			BRB5819WSQ	0.55	
		$I_F=3A$ ($t<5\mu s$)	BRB5817WSQ	0.60	
			BRB5818WSQ	0.75	
			BRB5819WSQ	0.875	
Instantaneous Reverse Current	I_{RM}	$V_R=V_{RWM}$		1	mA
Junction Capacitance	C_J	$V_R=4V$ $f=1.0MHz$		120	pF

/ Electrical Characteristic Curve



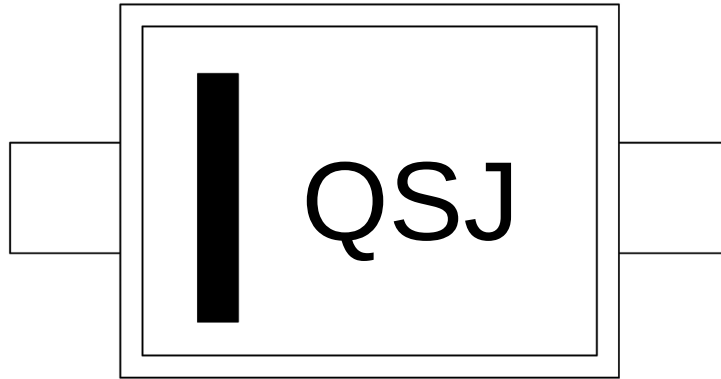
BRB5817WSQ-BRB5819WSQ

Rev.A Sep.-2022



DATA SHEET

/ Marking Instructions



Q

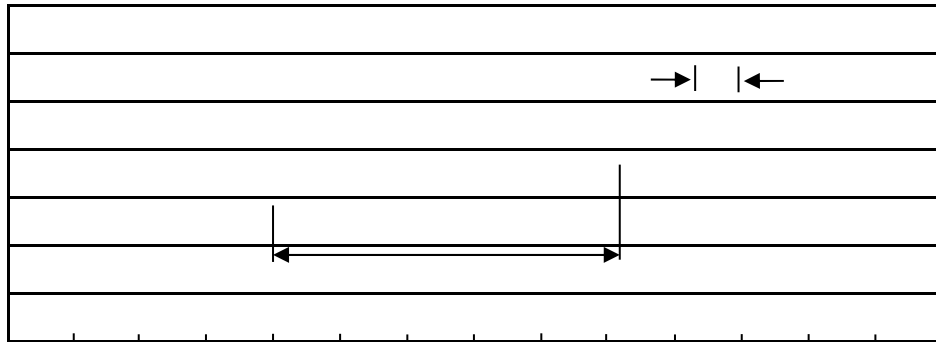
SJ

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