

BRDSL24WQ

Rev.A Mar.-2025



蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	BRDSL24WQ	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_F(AV)$	2	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50	A
Typical Junction Capacitance ¹⁾	C_i	290	pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	70	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	-55~+125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ\text{C}$

Note:

1 Measured at 1MHz and applied reverse voltage of 4 V D.C.

2)P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	BRDSL24WQ	Unit
Maximum Instantaneous Forward Voltage	V_F	$I_F=2.0\text{A}$	0.45	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^\circ\text{C}$	0.5	mA
		$T_a=100^\circ\text{C}$	10	

/ Electrical Characteristic Curve

Fig.1 Forward Current vs. Case Temperature

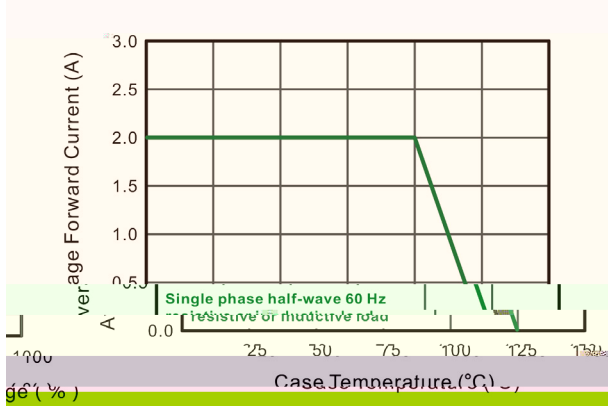


Fig.2 Typical Reverse Current vs. Temperature

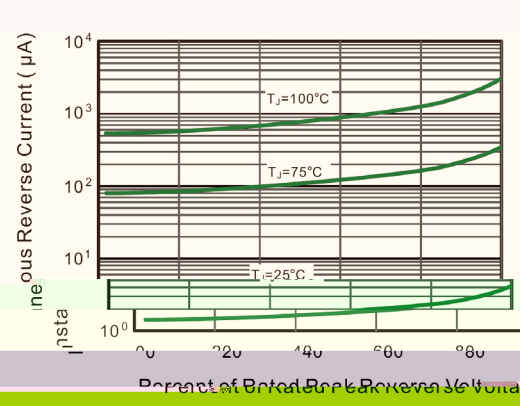


Fig.3 Typical Forward Characteristic

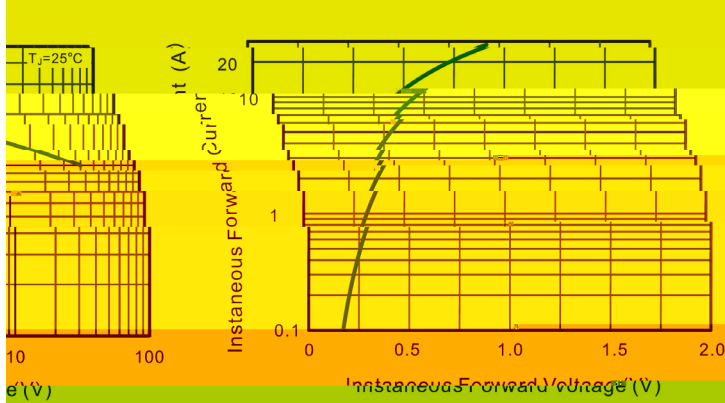


Fig.4 Typical Junction Capacitance

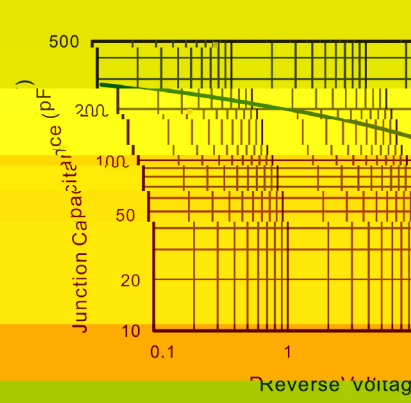


Fig.5 Maximum Non-Repetitive Forward Surge Current

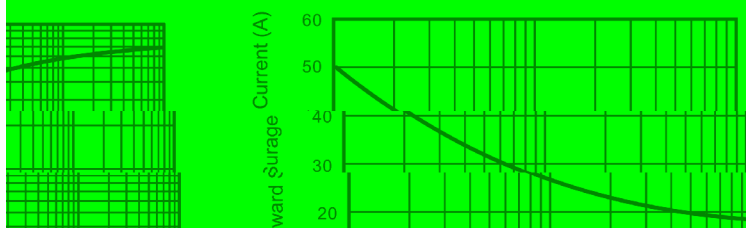
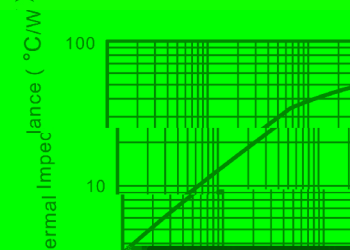
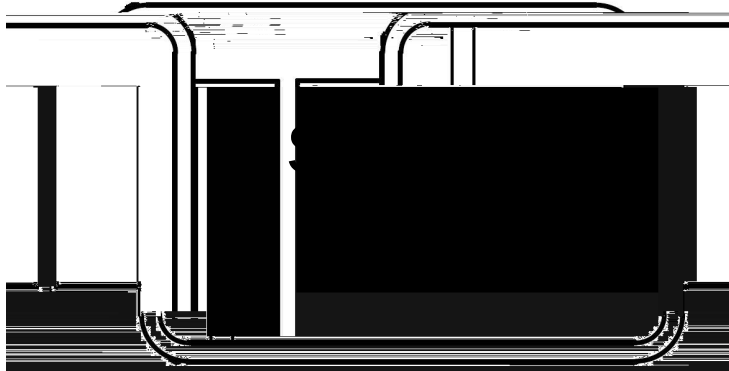


Fig.6 Typical Transient Thermal



/ Marking Instructions



SL24

Q

Note:

SL24 Product Type Code

Q: Automobile halogen-free product Code

**** Lot No. Code, code change with Lot No

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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)
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