

BRRB551VQ-30

Rev.A Jun.-2025

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Peak Reverse Voltage	V_{RM}	30	V
Forward Continuous Current	I_F	0.5	A
Non-Repetitive Peak Forward Surge Current @t = 8.3ms	I_{FSM}	15	A
Power dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient Air (NOTE 1)	R_{dJA}	500	K/W
Junction Temperature	T_j	125	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

Notes: 1. Part mounted on FR-4 board with recommended pad layout.

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Rating	Unit
DC Reverse Voltage	V_R	$I_R=100\mu A$	20	V
Maximum Instantaneous Forward Voltage	V_F	$I_F=1.0mA$	0.37	V
		$I_F=500mA$	0.47	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$V_R=20V$	100	μA
Typical Junction Capacitance	C_T	$V_R=4V$ f=1MHz	50(Typ)	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=1mA$ $I_{rr}=1mA$ $R_L=100\Omega$	30	nS

BRRB551VQ-30

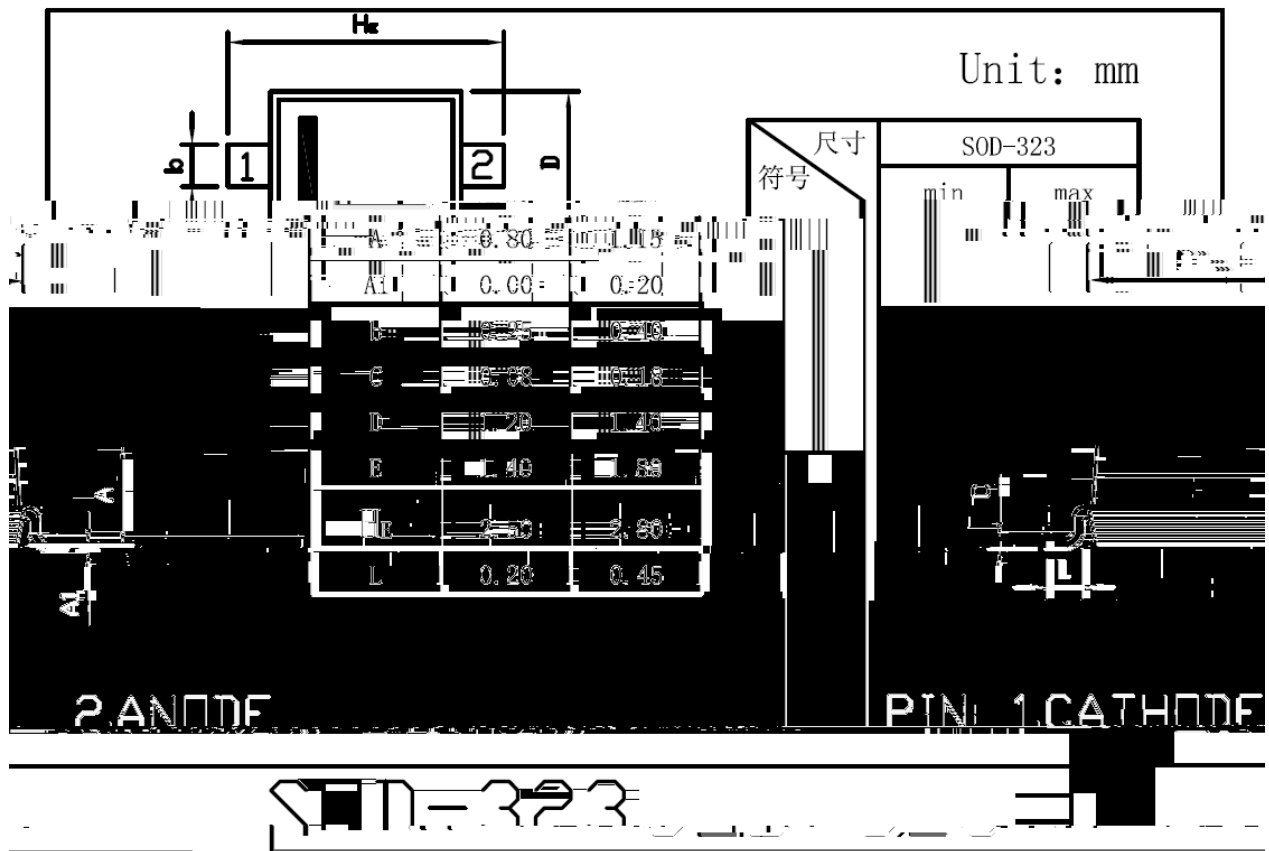
Rev.A Jun.-2025



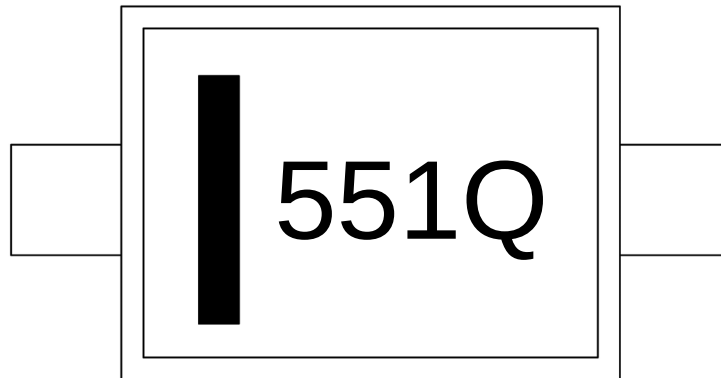
蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Package Dimensions



/ Marking Instructions



551

Q

Note:

551 Product Type Code

Q: Automobile halogen-free product Code

() / **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)		
						Reel	Inner Box	Outer Box
SOD-323	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205