

/ Descriptions

SOD-323

Schottky Diode in a SOD-323 Plastic Package.

/ Features

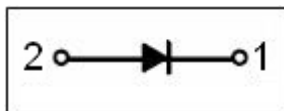
AEC-Q101

Low forward voltage drop, Fast Switching Time, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

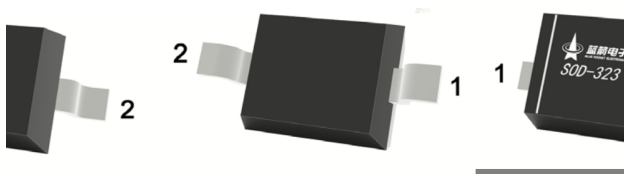
/ Applications

General purpose.

/ Equivalent Circuit



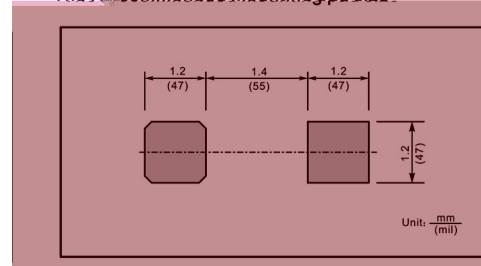
/ Pinning



PIN1:Cathode

PIN2:Anode

The recommended mounting size is as follows:



/ Marking

Model	BRRB551VQ-30
Marking	551Q

/ 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)	$R_{\theta JA}$	500	K/W
Junction Temperature	T_j	125	
Storage Temperature	T_{stg}	-55 ~ +150	

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

/ Electrical Characteristic Curve

Fig.1 Power Derating Curve

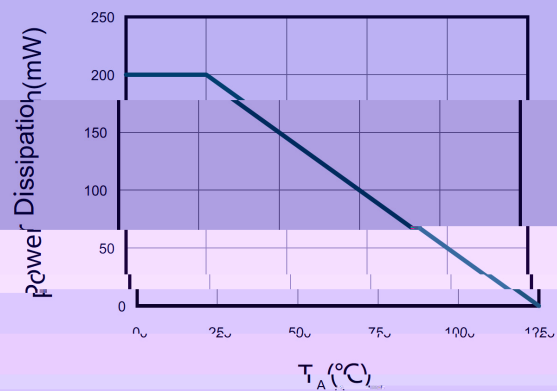
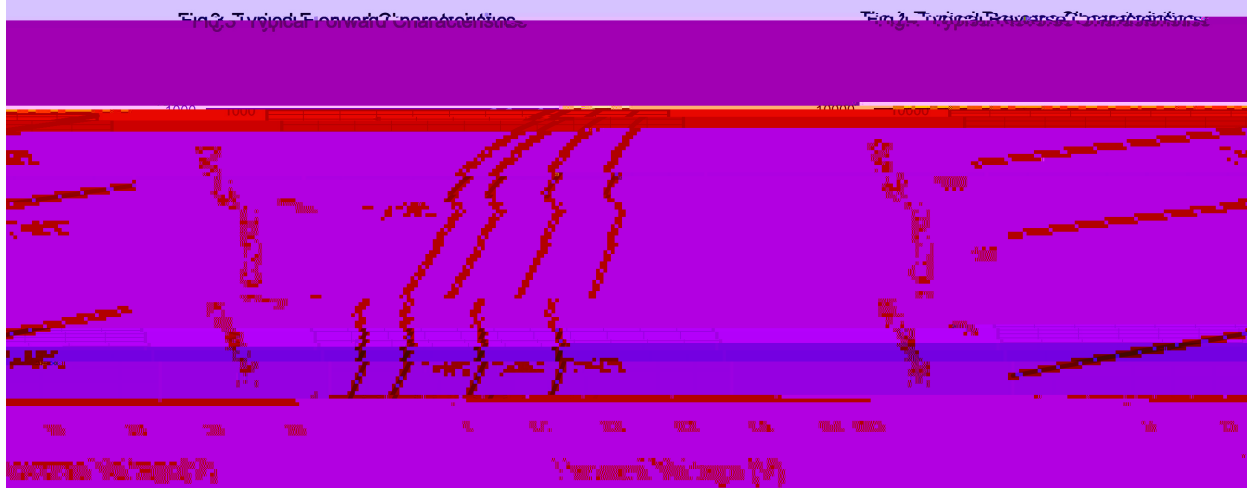
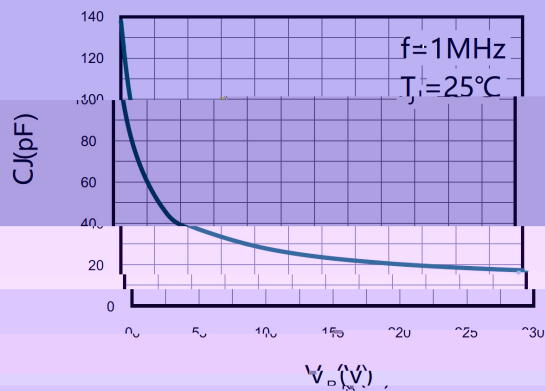
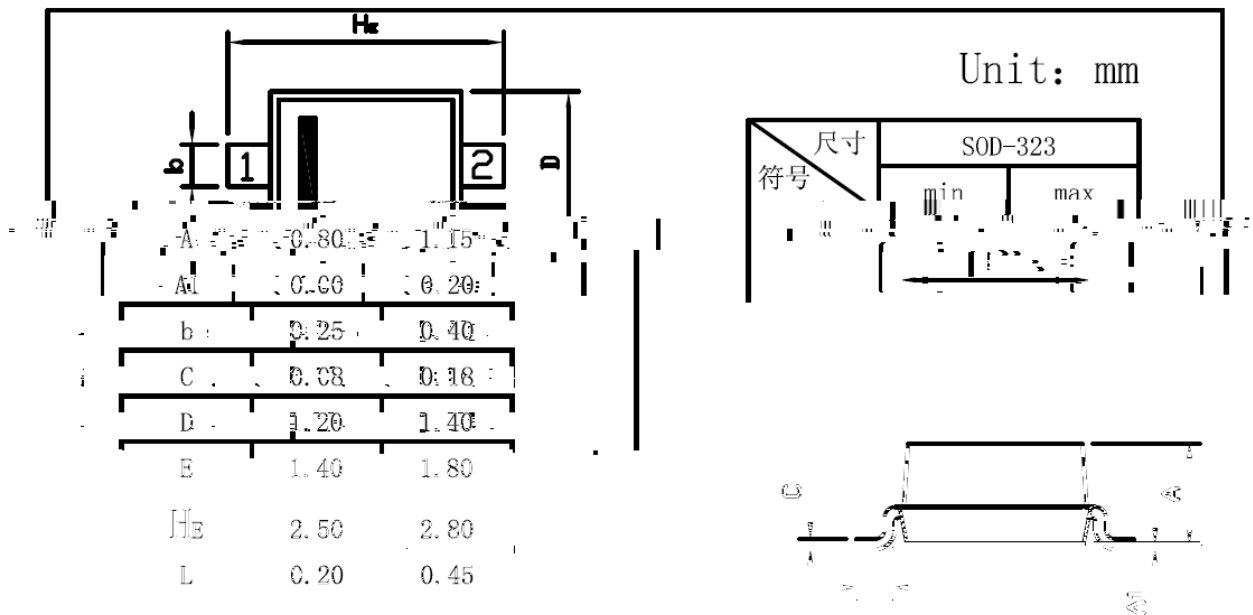


Fig.2 Typical Capacitance Characteristics



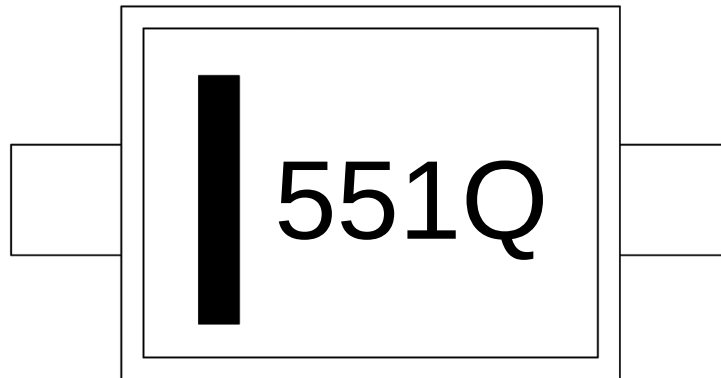
/ Package Dimensions



 PIN 1 (CATHODE)  PIN 2 (ANODE)

SOD-323

/ 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)		
	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