

/ Descriptions

Silicon Diode in a SOT-23 Plastic Package.

/ Features

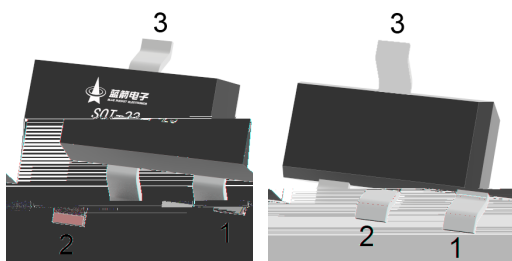
Small signal diode, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

High Conductance Ultra Fast Diode, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit

/ Pinning



PIN: See Equivalent Circuit.

/ Marking

Marking

QA4

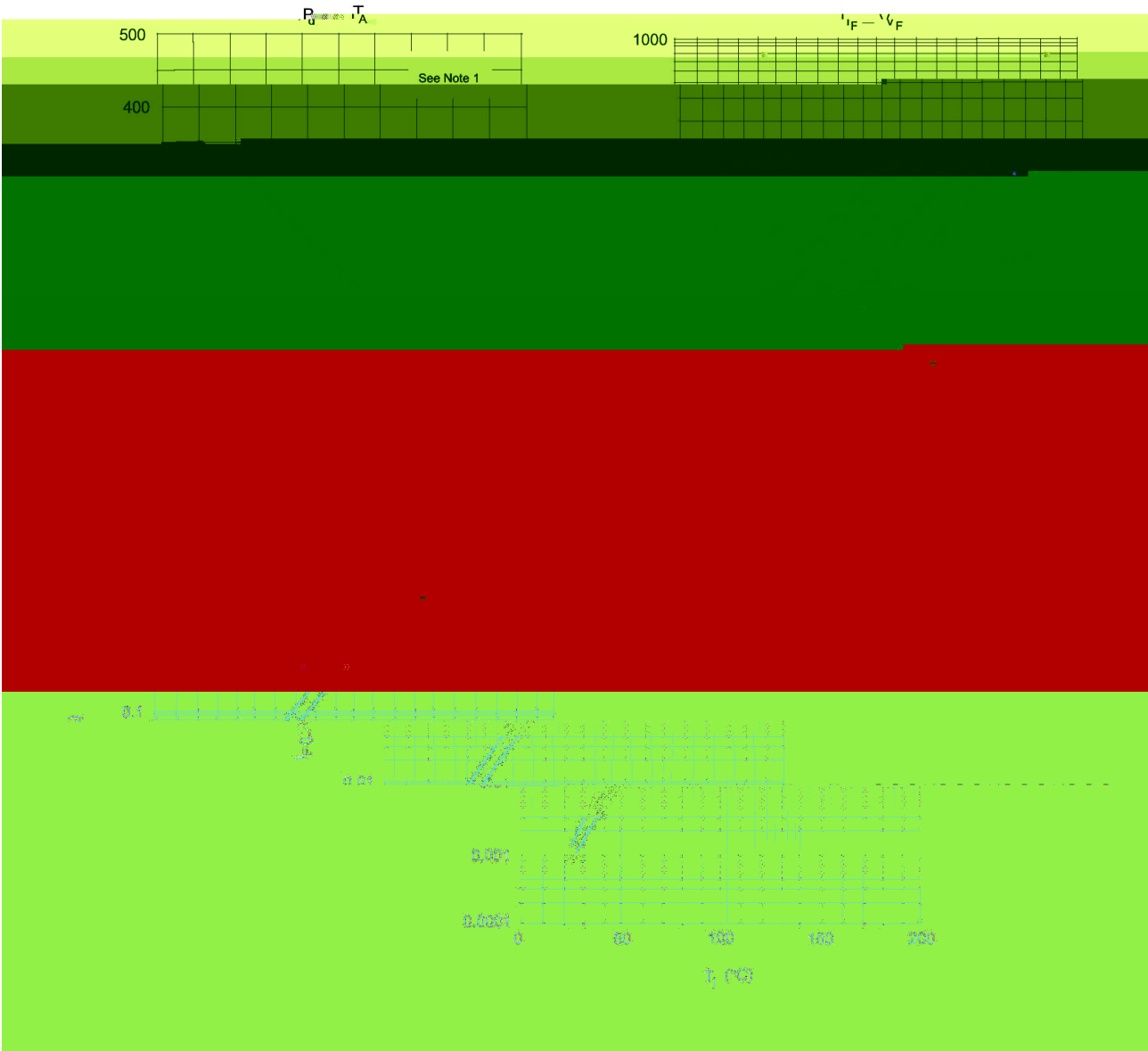
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	75	V
Breakdown Voltage	V_R	70	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM(1)}(\text{pulse width}=1.0S)$	1.0	A
	$I_{FSM(2)}(\text{pulse width}=1.0mS)$	2.0	A
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient	R_{JA}	357	/W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	$I_R=100 \text{ A}$	70			V
Forward Voltage	V_F	$I_F=1.0mA$			715	mV
		$I_F=10mA$			855	mV
		$I_F=50mA$			1.0	V
		$I_F=150mA$			1.25	V
Instantaneous Reverse Current	I_R	$V_R=70V$			5.0	A
		$V_R=25V \quad T_A=150$			60	A
		$V_R=70V \quad T_A=150$			100	A
Total Capacitance	C_T	$V_R=0 \quad f=1.0MHz$			1.5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA$ $I_{RR}=1.0mA \quad R_L=100$			6.0	ns

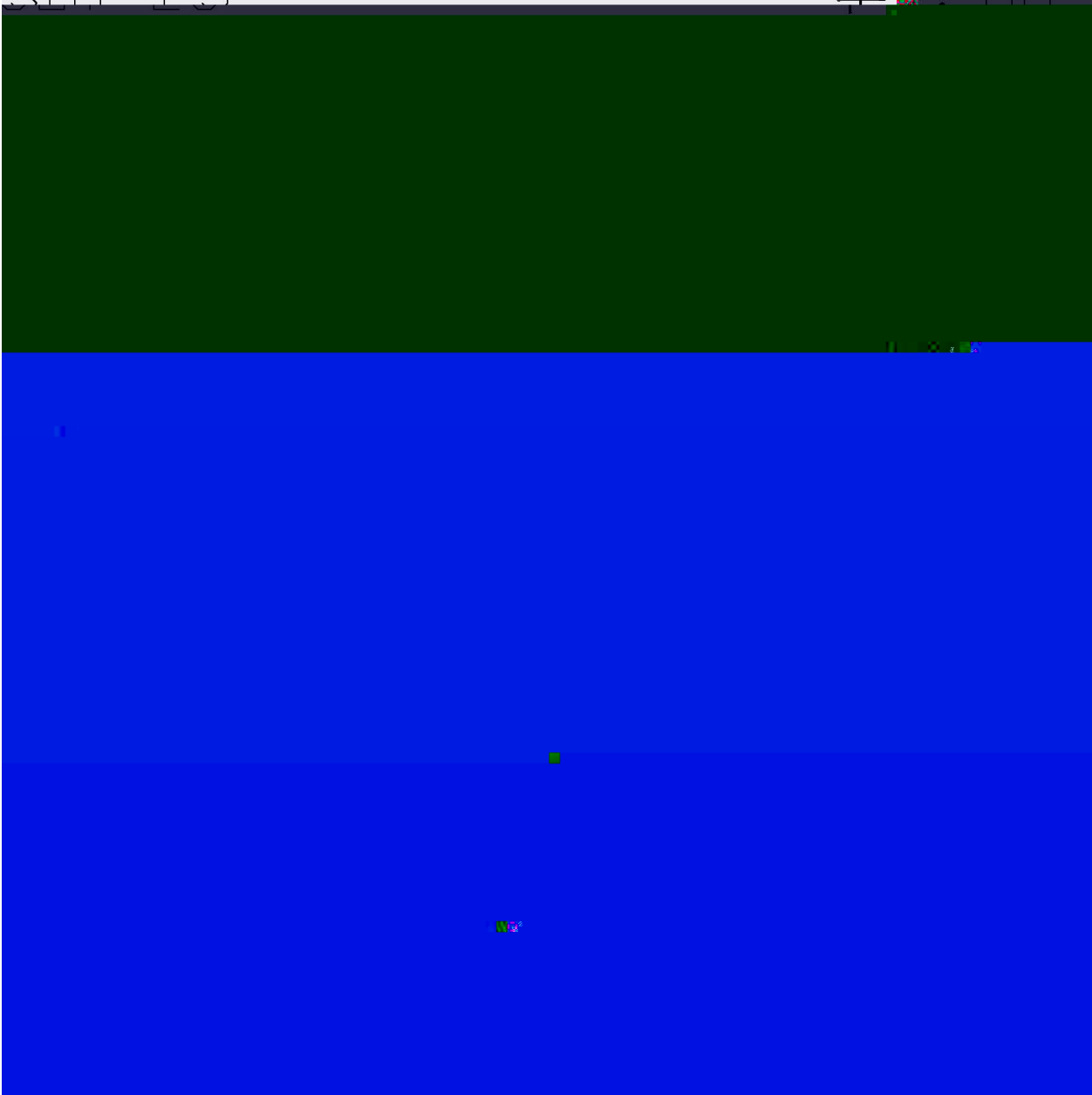
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions

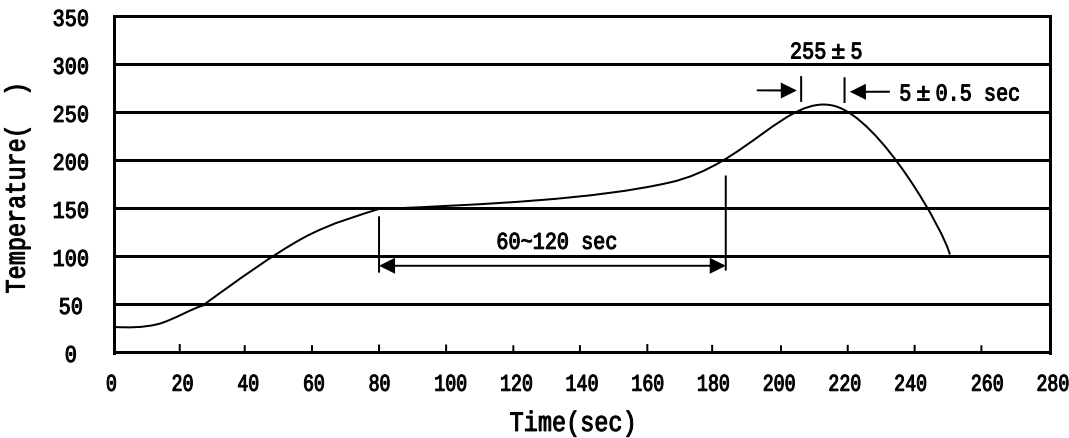


Note:

Q: Automobile halogen-free product Code

A4: Product Type 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
SOT-23	3,000	10	30,000	6	180000	7 ×8	180×120×180	390×385×205

/ Notices