BR1N4007WQ

Rev.A Sep.-2024

DATA SHEET

/ Descriptions

SOD-123FL

Surface Mount General Purpose Silicon Rectifiers Reverse Voltage 1000V Forward Current 1A SOD-123FL thin package.

/ Features

, RoHS 2011/65/EU

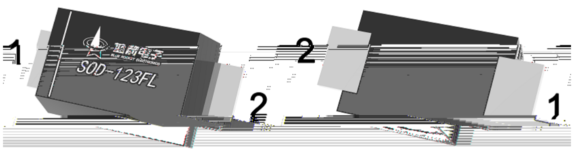
Glass Passivated Chip Junction Ideal for automated placement Lead free in comply with EU RoHS 2011/65/EU directives For surface mounted applications, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

General purpose, Meet the stringent requirements of automotive applications.

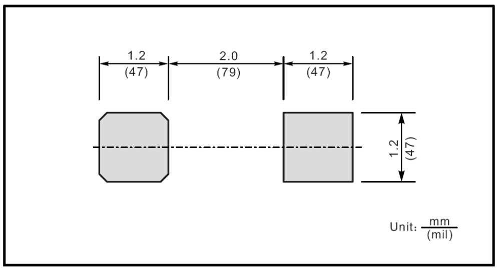
/ Equivalent Circuit

/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode

The recommended mounting pad size



/ Marking

See Marking Instructions.

Parameter	Symbol	Rating	Unit
		BR1N4007WQ	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F\ \ AV}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Peak Forward Surge Current 1.0 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	60	A

/ Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

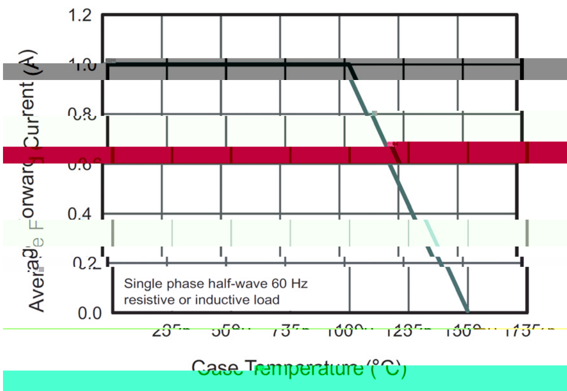


Fig.2 Typical Reverse Characteristics

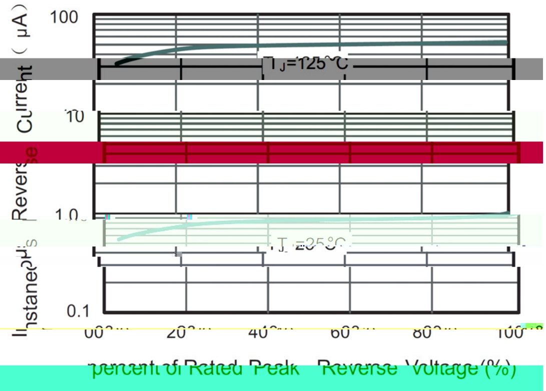


Fig.3 Typical Forward Characteristic

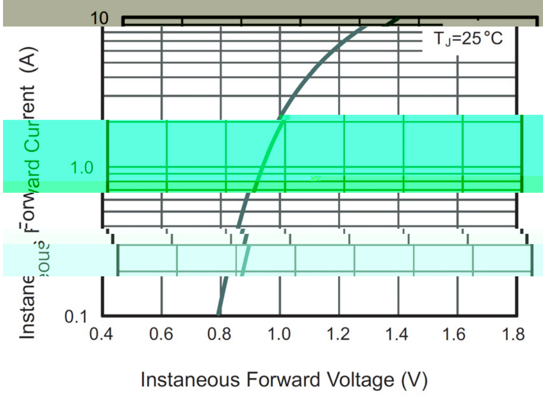


Fig.4 Typical Junction Capacitance

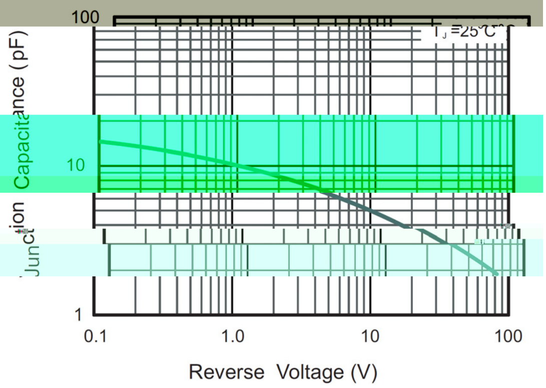
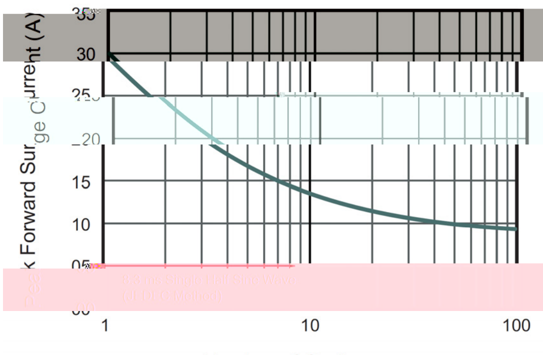
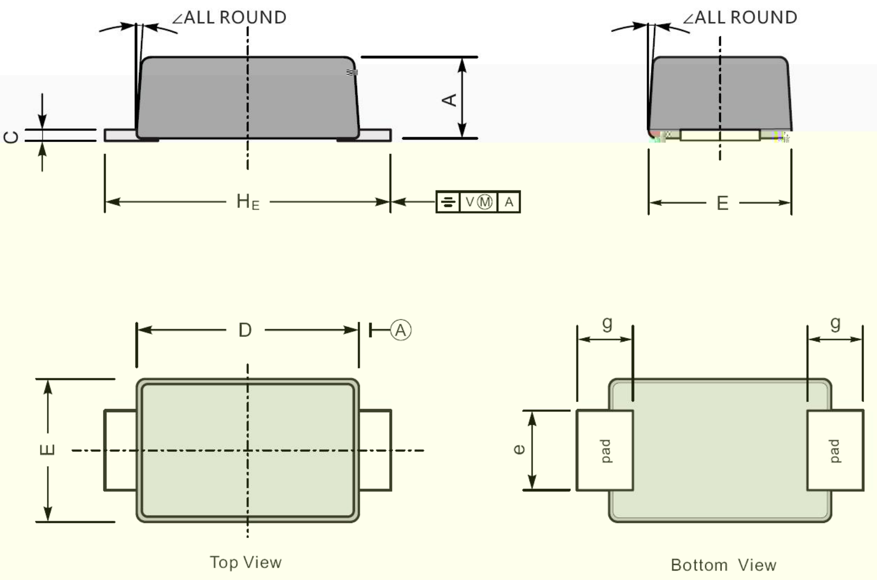


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



/ Package Dimensions

SOD-123FL

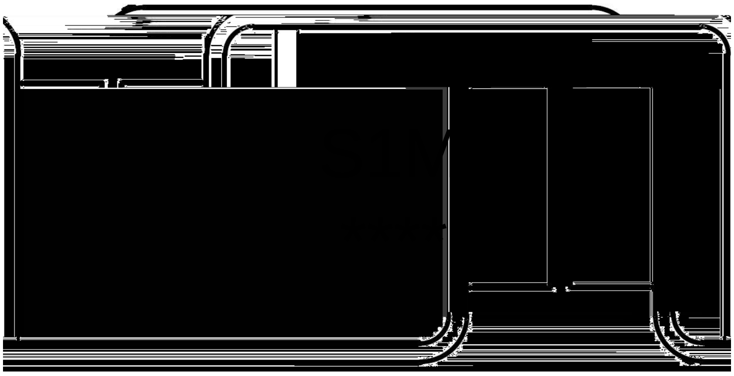


Top View

Bottom View

UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

/ Marking Instructions



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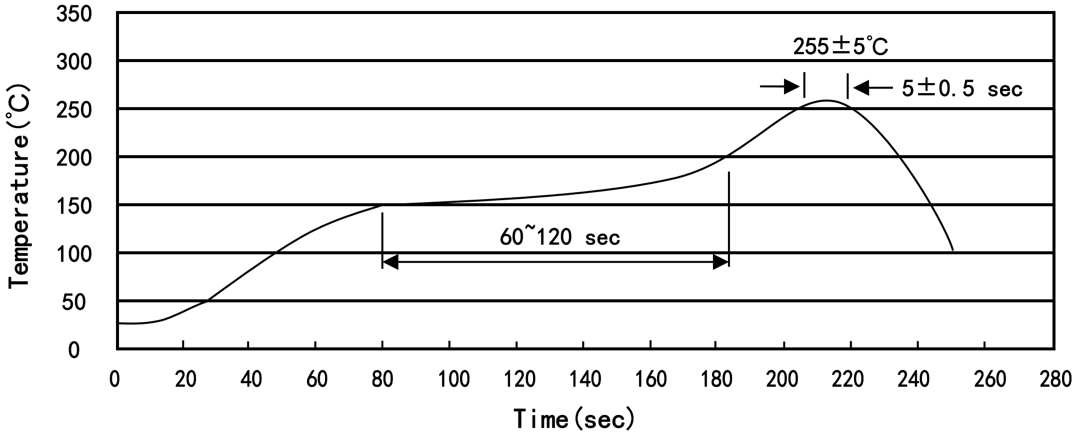
Note:

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

( ) / 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)
SOD-123FL	3,000	8	24,000	6	144,000	7 ×8	185×180×105	390×385×205

/ Notices