SS210L

Lov VF Schottky Barrier Rectifiers

Primary Characteristics

I_F	2	A
V_{RRM}	100	V
I_{FSM}	50	A
V_F	0.75	V

Features

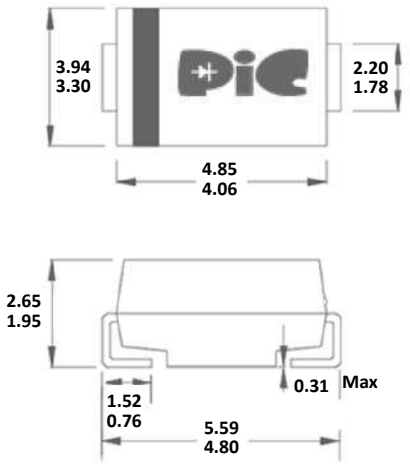
- For surface mounted applications
- Ultra thin profile package for space constrained utilization
- Package suitable for automated handling
- Low power loss, high efficiency.
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Meet with EU RoHS 2011/65/EU compliance
- Lead free and Green device

Mechanical Data

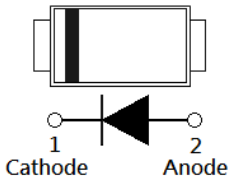
- Epoxy: UL94V-0 rated flame retardant
- Case: Epoxy, Molded
- Terminals: Solder plated solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Weight: approx.. 0.093grams

Package Outline Dimensions

SMB



Dimensions in inches and millimeters



Maximum Ratings & Electrical Characteristic

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Parameter	Symbol	SS210L	UNITS
Recurrent Peak Reverse Voltage	V_{RRM}	100	Volts
RMS Voltage	V_{RMS}	70	Volts
DC Blocking Voltage	V_R	100	Volts
Average Forward Current	$I_{F(AV)}$	2.0	Amps
Peak Forward Surge Current 8.3ms single half sine -wave superimposed on rated load (JEDEC Method)	I_{FSM}	50	Amps
Forward Voltage at 2.0A	V_F	0.75	Volts
DC Reverse Current at Rated DC Blocking Voltage T_J=25°C	I_R	0.5	mA
Typical thermal resistance, Junction to Lead (NOTE1) Junction to Ambient (NOTE2)	$R_{\Theta JL}$ $R_{\Theta JA}$	24 80	°C/W
Operating Junction Temperature and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

Notes:

(1) Mounted on an FR4 PCB, single-sided copper, with 8.0 x 8.0 mm copper pad area.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Rating and Characteristics Curves

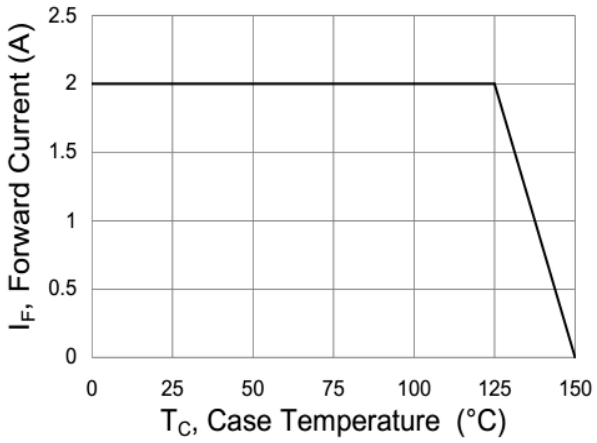


Fig. 1 Forward Current Derating Curve

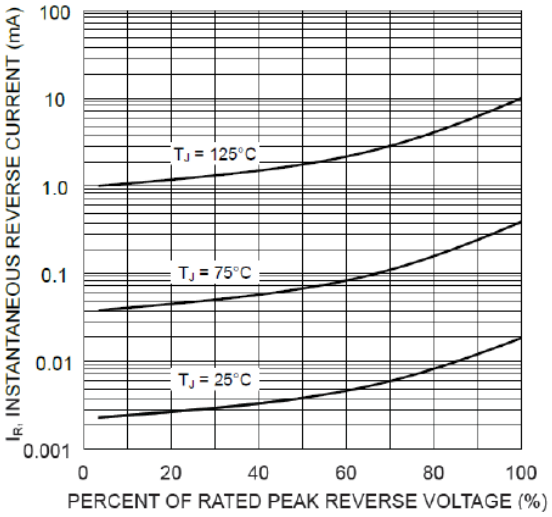


Fig. 2 Typical Reverse Characteristics

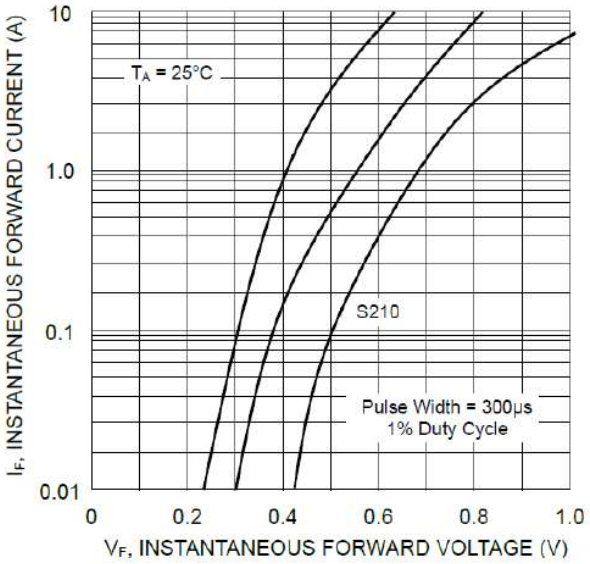
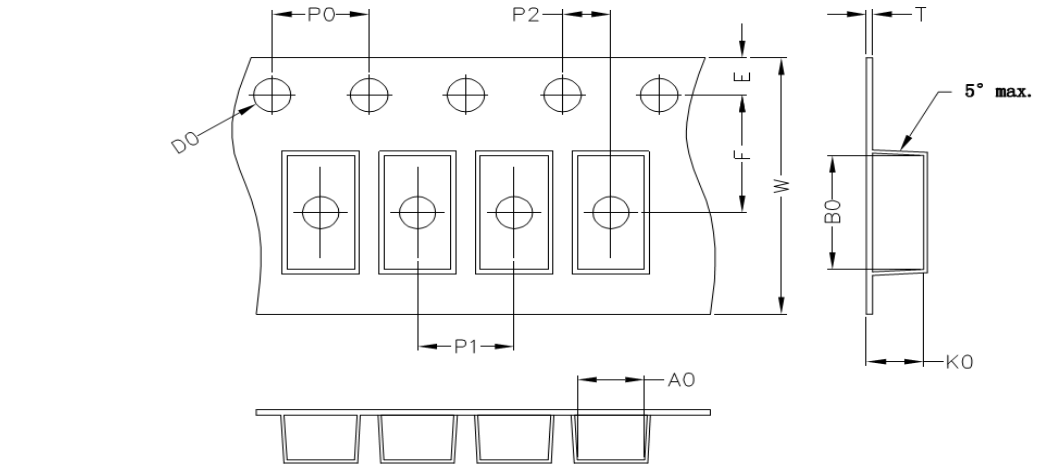
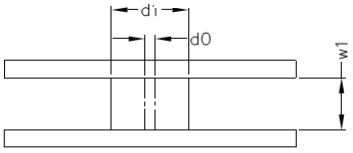


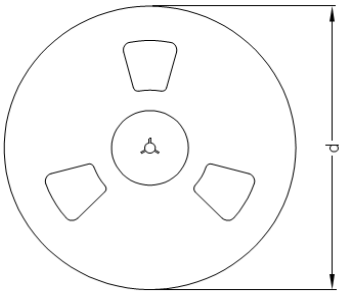
Fig. 3 Typical Forward Characteristics

Packaging Specifications

Package	A0 (mm)	B0 (mm)	K0 (mm)	D0 (mm)	E (mm)	F (mm)	P0 (mm)	P1 (mm)	P2 (mm)	T (mm)	W (mm)
SMA	2.8±0.1	5.33±0.1	2.36±0.1	1.55±0.1	1.75±0.1	5.50±0.1	4.0±0.1	4.0±0.01	2±0.1	0.25±0.1	9.4±0.1
SMB	3.8±0.1	5.40±0.1	2.45±0.1	1.55±0.1	1.75±0.1	5.50±0.1	4.0±0.1	8.0±0.01	2±0.1	0.25±0.1	9.4±0.1
SMC	6.05±0.1	8.31±0.1	2.54±0.1	1.55±0.1	1.75±0.1	7.50±0.1	4.0±0.1	8.0±0.05	2±0.1	0.25±0.1	12±0.1



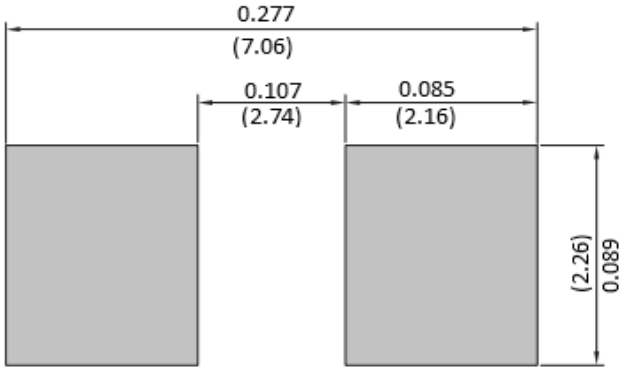




Package	D1 (mm)	D0 (mm)	W1 (mm)	D (mm)
SMA	75	13.5	13.5	330
SMB	75	13.5	13.5	330
SMC	75	13.5	17.0	330

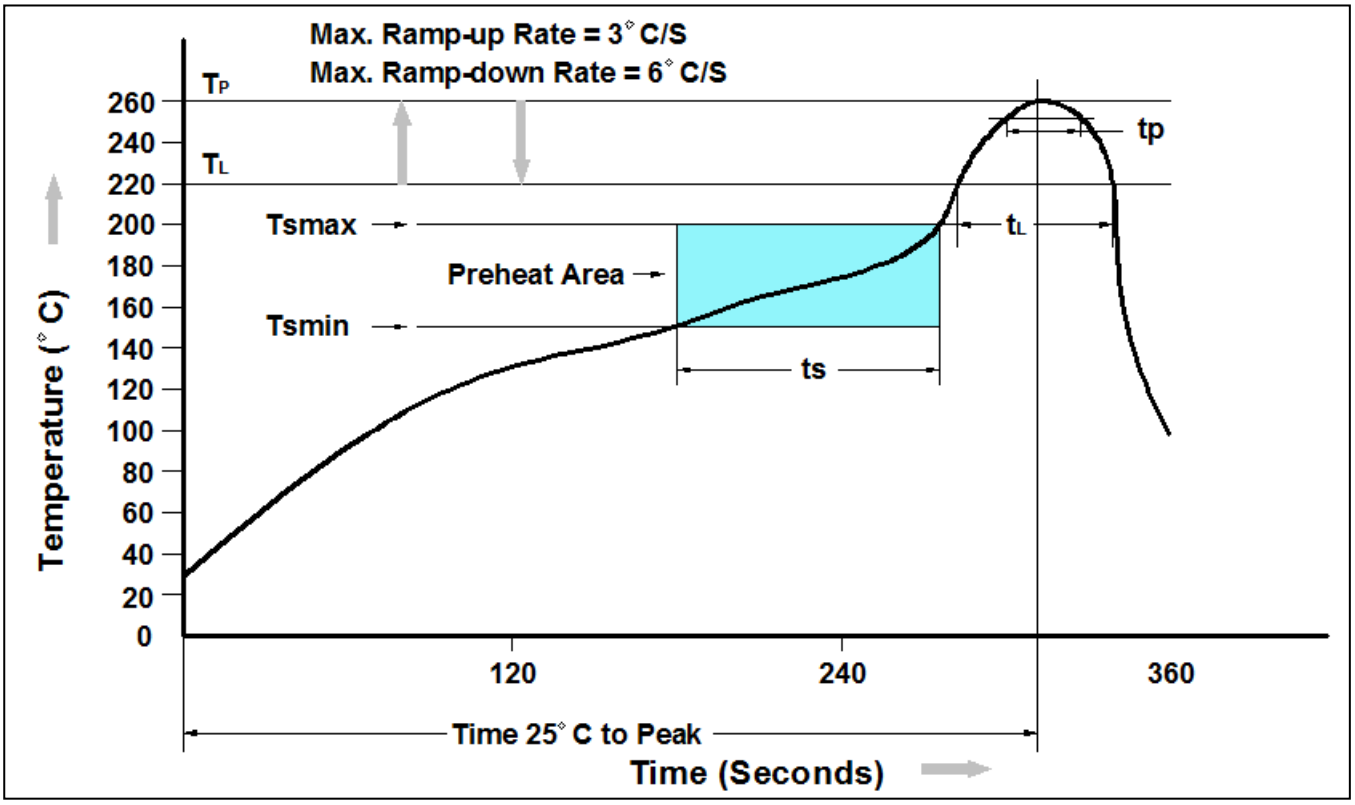
NOTE：The tolerance of reel is ±2mm

Suggested Pad Layout



Unit: inch (mm)

Recommand IR Reflow Soldering Thermal Profile



Profile Feature	Pb-Free Assembly Profile
Temperature Min. (Tsmin)	150°C
Temperature Max. (Tsmax)	200°C
Time (ts) from (Tsmin to Tsmax)	60-120 seconds
Average Ramp-up Rate (tL to tP)	3°C/second max.
Liquidous Temperature (TL)	217°C
Time (tL) Maintained Above (TL)	60 – 150 seconds
Peak Temperature	260°C +0°C / -5°C
Time (tP) within 5°C of actual Peak Temperature	30 seconds
Ramp-down Rate (TP to TL)	6°C/second max
Time 25°C to Peak Temperature	8 minutes max.

Ordering Information

Part Number	Description	Quantity
SS210L	SMB Reel	3000 pcs

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