

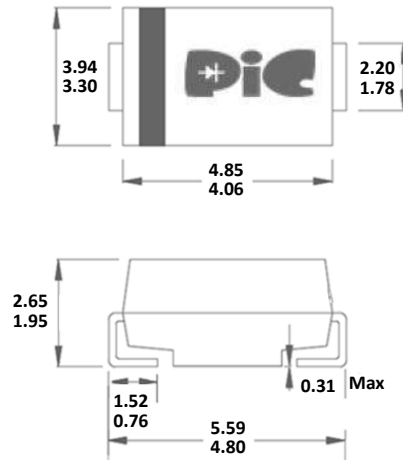
### Features

- Epitaxial Construction
- Low forward voltage drop
- Low profile package
- Guardring for overvoltage protection
- High surge Current Capability
- Easy pick and place

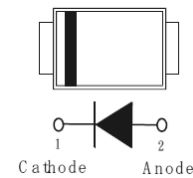
### Mechanical Data

- Case: DO-214AA/SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 0.095grams (approx.)

### SMB



Dimensions in inches and millimeters



### Maximum Ratings (TA=25°C unless otherwise noted)

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	SK110LB	UNITS
Max. Recurrent Peak Reverse Voltage	$V_{RRM}$	100	Volts
Max. RMS Voltage	$V_{RMS}$	70	Volts
Max. DC Blocking Voltage	$V_{DC}$	100	Volts
Max. Average Forward Rectified Current	$I_{F(AV)}$	1.0	Amps
Peak Forward Surge Current 8.3ms single half sine -wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50	Amps
Max. Instantaneous Forward Voltage at 1.0A	$V_F$	0.75	Volts
Max. DC Reverse Current $T_A=25^\circ\text{C}$	$I_R$	0.1	mA
Max. DC Reverse Current $T_A=100^\circ\text{C}$		5	
Typ. Thermal Resistance	$R_{\theta JL}$	30	$^\circ\text{C/W}$
Typ. Junction to Ambient	$R_{\theta JA}$	85	
Operating Junction Temperature and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

### Rating and Characteristics Curves

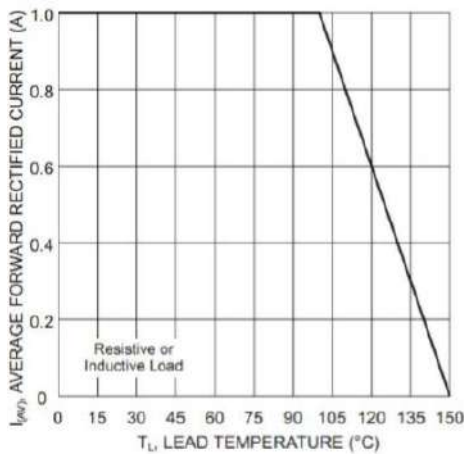


Fig. 1 Forward Current Derating Curve

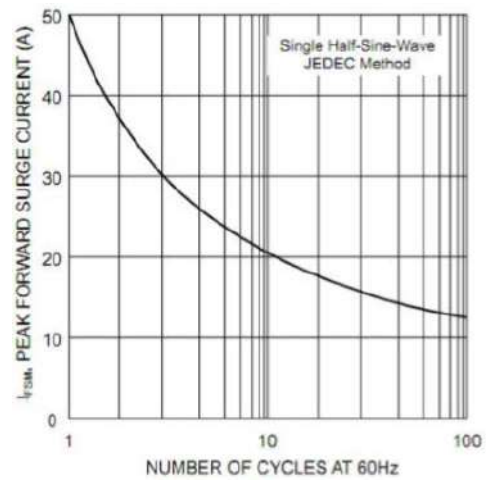


Fig. 2 Typ. Forward Characteristics

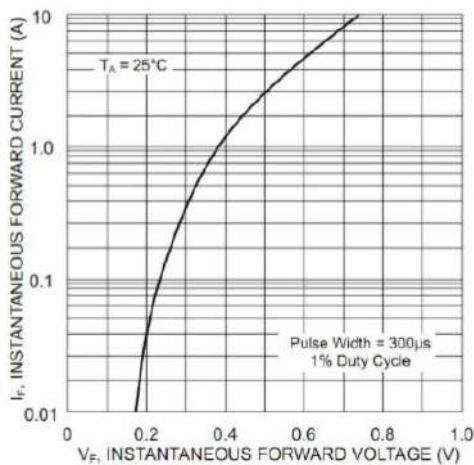


Fig. 3 Max. Non-Repetitive Peak Fwd Surge

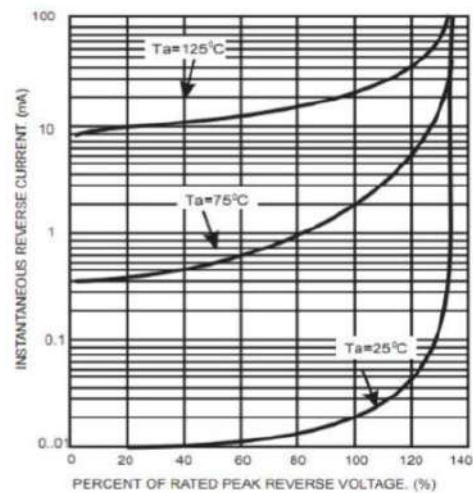
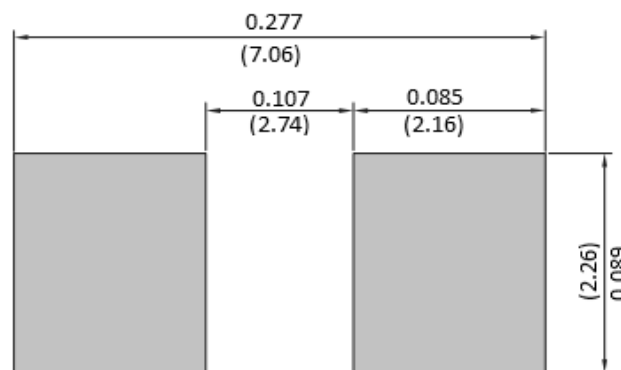


Fig. 4 Typ. Reverse Characteristics

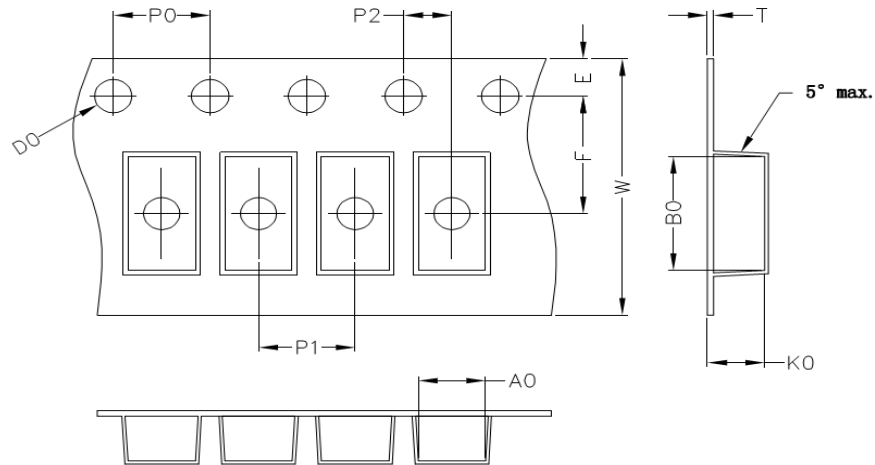
### Suggested Pad Layout



Unit: inch (mm)

### 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



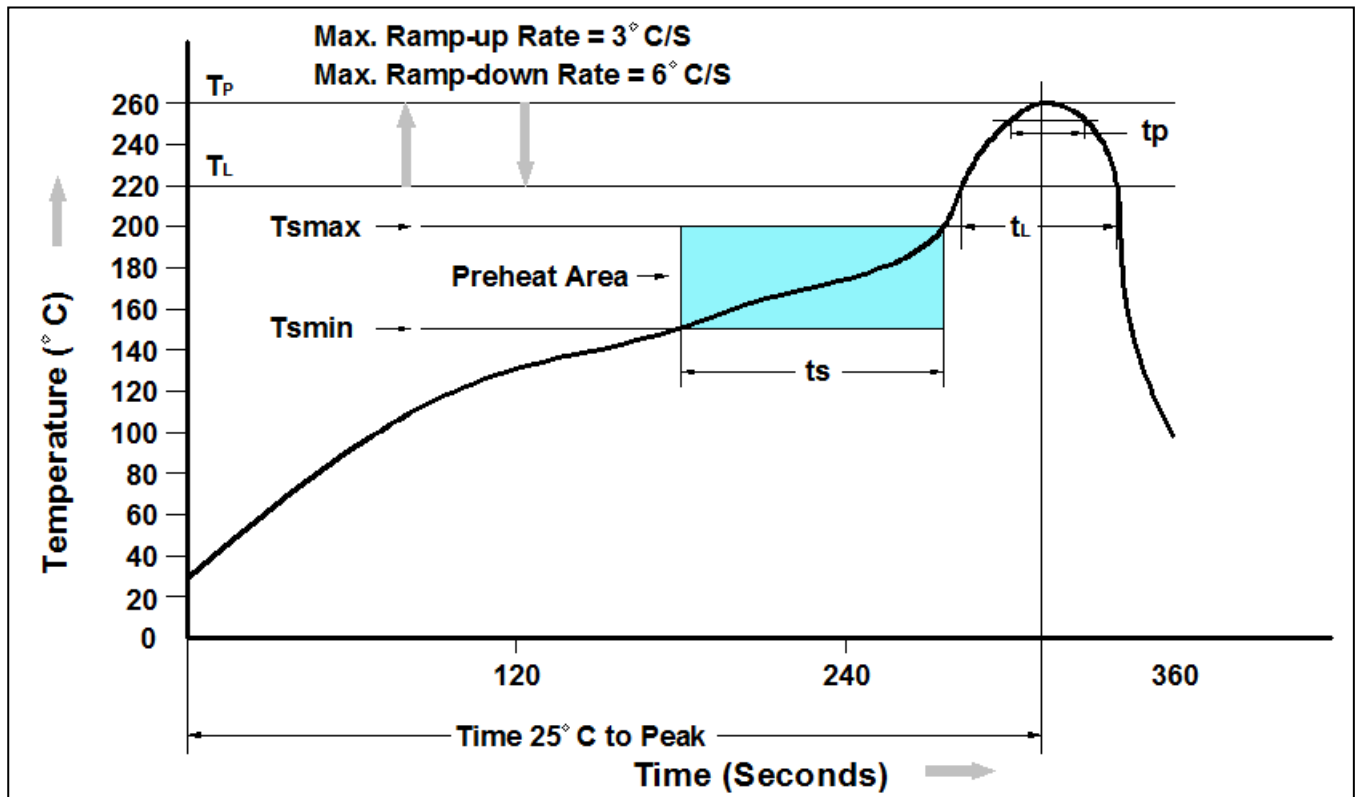
Package	D1 (mm)	D0 (mm)	W1 (mm)	D (mm)
SMA	75	13.5	13.5	330
SMB	75	13.5	13.5	330
SMC	75	13.5	17.0	330

NOTE : The tolerance of reel is ±2mm

### Ordering Information

Part Number	Description	Quantity
SK110LB	SMB Reel	3000 pcs

Recommend IR Reflow Soldering Thermal Profile



Profile Feature	Pb-Free Assembly Profile
Temperature Min. (Tsmmin)	150°C
Temperature Max. (Tsmmax)	200°C
Time (ts) from (Tsmmin to Tsmmax)	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.

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