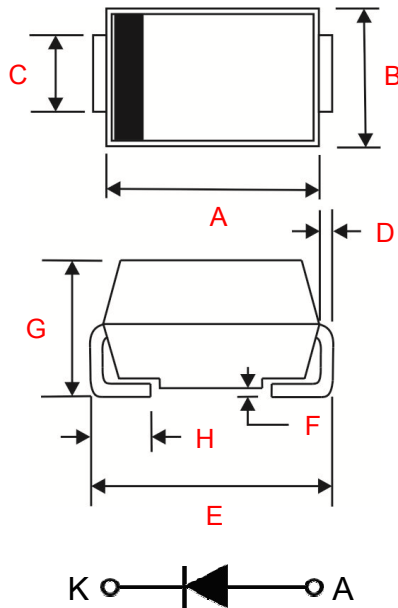


## Surface Mount Schottky Barrier Rectifier

### Package Outline Dimensions ( millimeters )



SMB (DO-214AA)		
Dim.	Min.	Max.
A	4.06	4.75
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
F	-----	0.20
G	2.00	2.50
H	0.76	1.52
All Dimensions in millimeter		

### Features

- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss & High Efficiency
- Guard Ring Protection
- Pd-free lead plating & Halogen-free part

### Mechanical

- Molded Plastic Low profile SMB (DO-214AA)
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : 0.003 ounces (0.091 grams)

### Maximum Ratings & Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise specified )

Parameter	Symbol	SK310B	SK315B	SK320B	Units
Marking Code		SK310	SK315	SK320	
DC Blocking Voltage	$V_{RM}$	100	150	200	Volts
Working Peak Reverse Voltage	$V_{RWM}$	70	105	140	
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	150	200	
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	$I_{F(AV)}$	3			Amps
Non-Repetitive Peak Forward Surge Current (Surge applied at rated load conditions half wave, single phase, 60Hz)	$I_{FSM}$	80			Amps
Instantaneous Forward Voltage $I_F = 3A, T_A = 25^\circ\text{C}$	$V_F$	0.85	0.87	0.9	Volts
Instantaneous Reverse Current $V_R = V_{RRM}, T_A = 25^\circ\text{C}$ $V_R = V_{RRM}, T_A = 100^\circ\text{C}$	$I_R$	0.5 20.0			mA
Total Capacitance $V_R = 4V, f = 1\text{MHz}$	$C_T$	400			pF

NOTE : 1.FR-4 PCB, 2 oz Copper. Minimum recommended pad layout

2.Polyimide PCB, 2 oz Copper. Cathode pad dimensions 18.8x14.4mm , Anode pad dimensions 5.6x14.4mm

**Thermal Characteristics** (  $T_A = 25^\circ\text{C}$  unless otherwise specified )

Parameter	Symbol	Value	Units
Maximum Thermal Resistance Junction to Terminal	$R\theta_{JT}$	10	$^\circ\text{C} / \text{W}$
Operating & Storage Junction Temperature	$T_J$	150	$^\circ\text{C}$
	$T_{STG}$	- 65 to +150	

**Ratings and Characteristics Curves** (  $T_A = 25^\circ\text{C}$  unless otherwise specified )

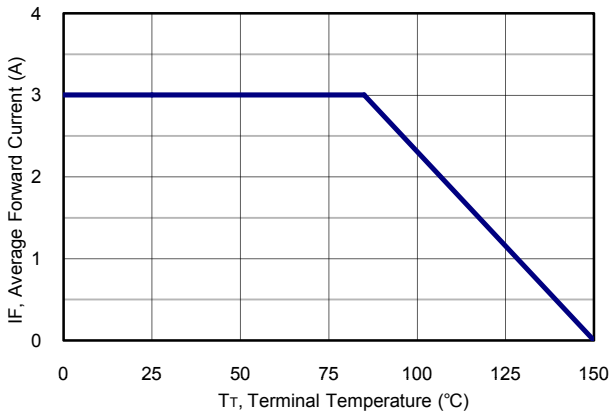


Figure 1: Current Derating Curves

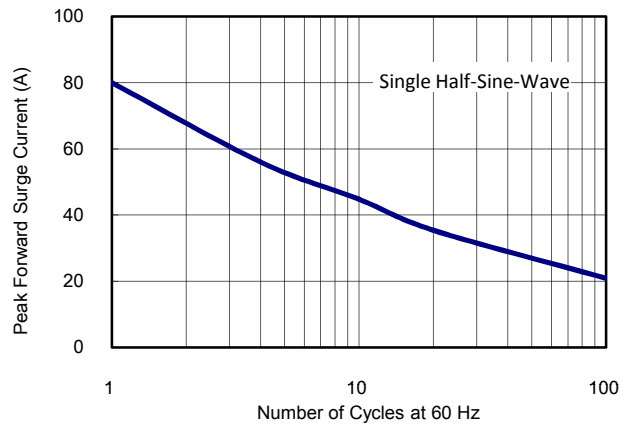


Figure 2: Peak Forward Surge Current

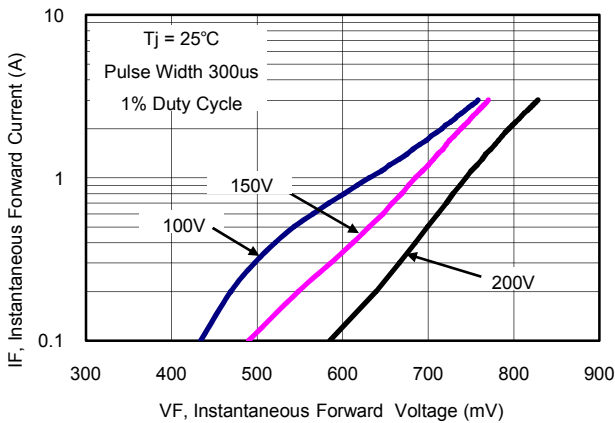


Figure 3: Typical Forward Characteristics

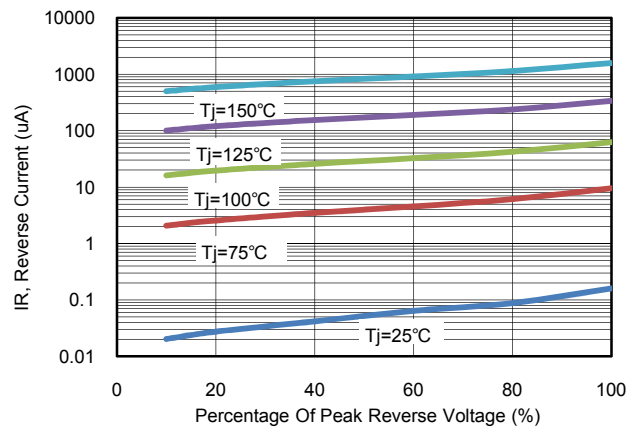
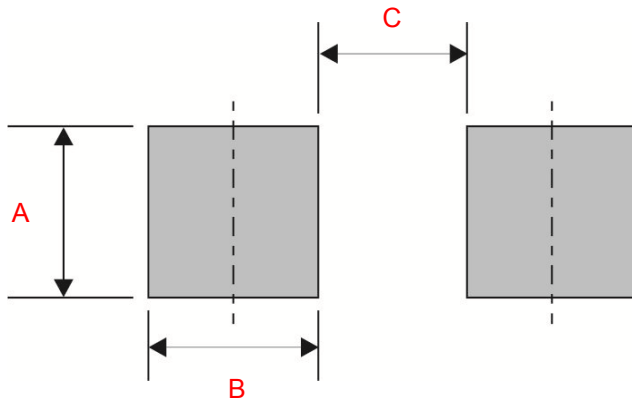


Figure 4: Typical Reverse Characteristics

**Suggested Pad Layout**


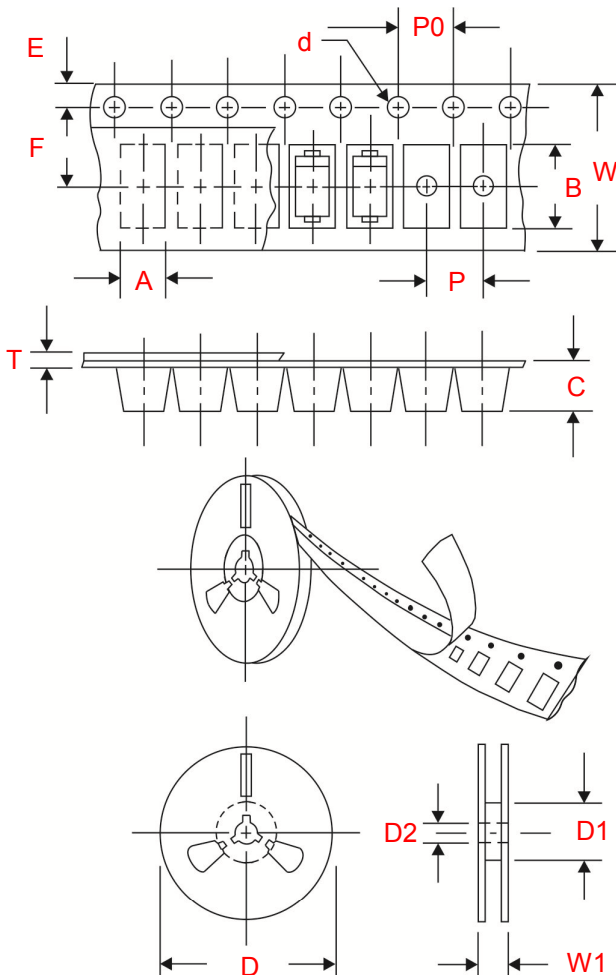
SMB (DO-214AA)	
Symbol	Dimensions
A	2.30
B	2.50
C	1.80
All Dimensions in millimeter	

**Ordering information**

Part Number	Package	Delivery mode
SK310B THRU SK320B	SMB (DO-214AA)	3,000 pieces / 13" Reel

**Tape and Reel Dimensions ( millimeters )**

Surface Mount Device are packed in accordance with EIA standard RS-481-D and specification.



Item	Symbol	Dimensions (mm)
		SMB (DO-214AA)
Carrier width	A	3.8 ± 0.1
Carrier length	B	5.5 ± 0.1
Carrier depth	C	2.45 ± 0.1
Sprocket hole	d	1.5 ± 0.1
Reel outside diameter	D	330.0 ± 1.0
Reel inner diameter	D1	72.0 ± 1.0
Feed hole diameter	D2	13.0 ± 1.0
Stocket hole position	E	1.75 ± 0.1
Punch hole position	F	5.5 ± 0.1
Punch hole pitch	P	8.0 ± 0.1
Sprocket hole pitch	P0	4.0 ± 0.1
Totall tape thickness	T	0.3 ± 0.1
Tape width	W	12.0 ± 0.3
Reel width	W1	18.0 ± 1.5

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