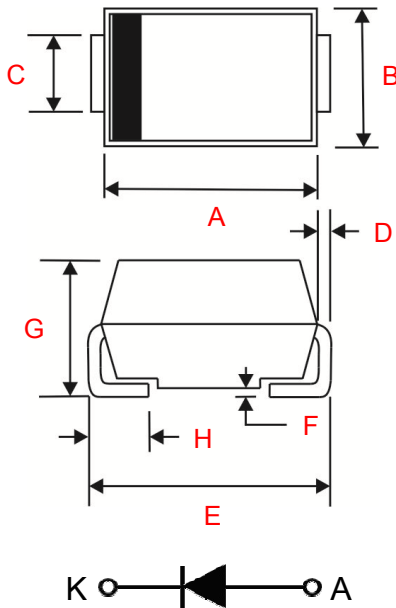


Surface Mount Schottky Barrier Rectifier

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	SK510B	SK515B	SK520B	Units
Marking Code		SK510	SK515	SK520	
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	$I_{F(AV)}$	5			Amps
Non-Repetitive Peak Forward Surge Current (Surge applied at rated load conditions half wave, single phase, 60Hz)	I_{FSM}	125			Amps
Instantaneous Forward Voltage $I_F = 5A, T_A = 25^\circ\text{C}$	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 Ambient	$R\theta_{JA}$	50	$^\circ\text{C} / \text{W}$
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)

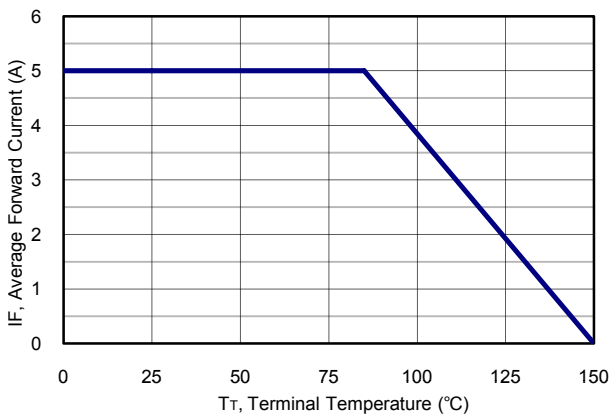


Figure 1: Current Derating Curves

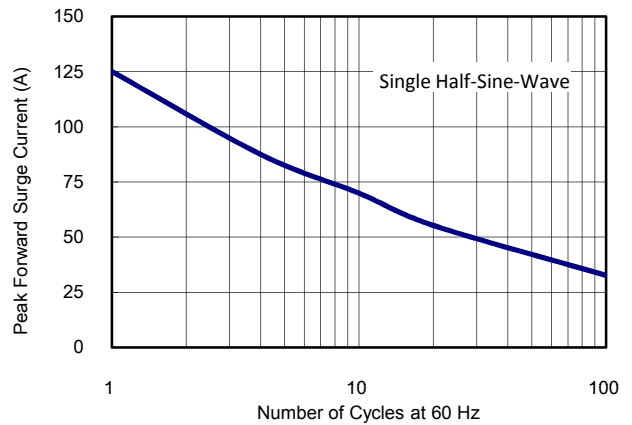


Figure 2: Peak Forward Surge Current

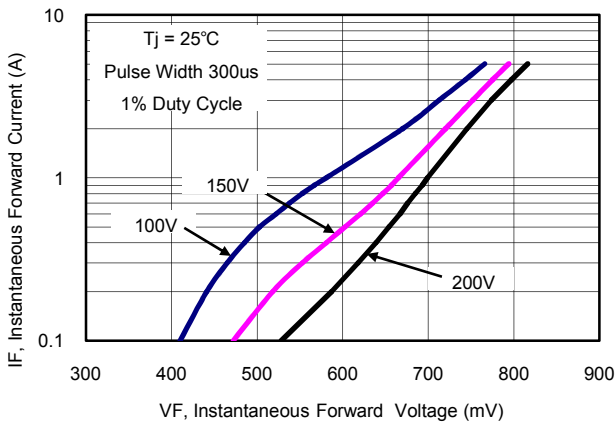


Figure 3: Typical Forward Characteristics

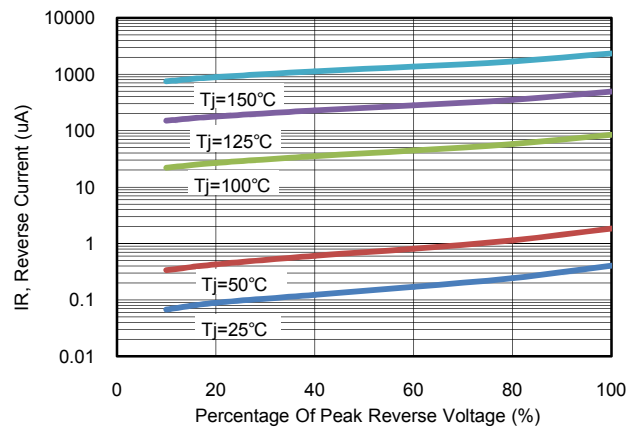
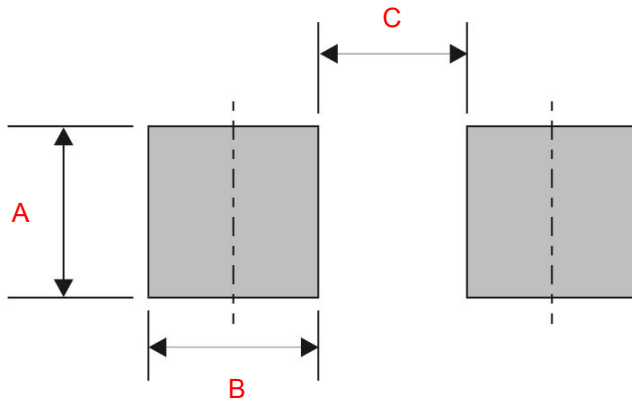


Figure 4: Typical Reverse Characteristics

Suggested Pad Layout


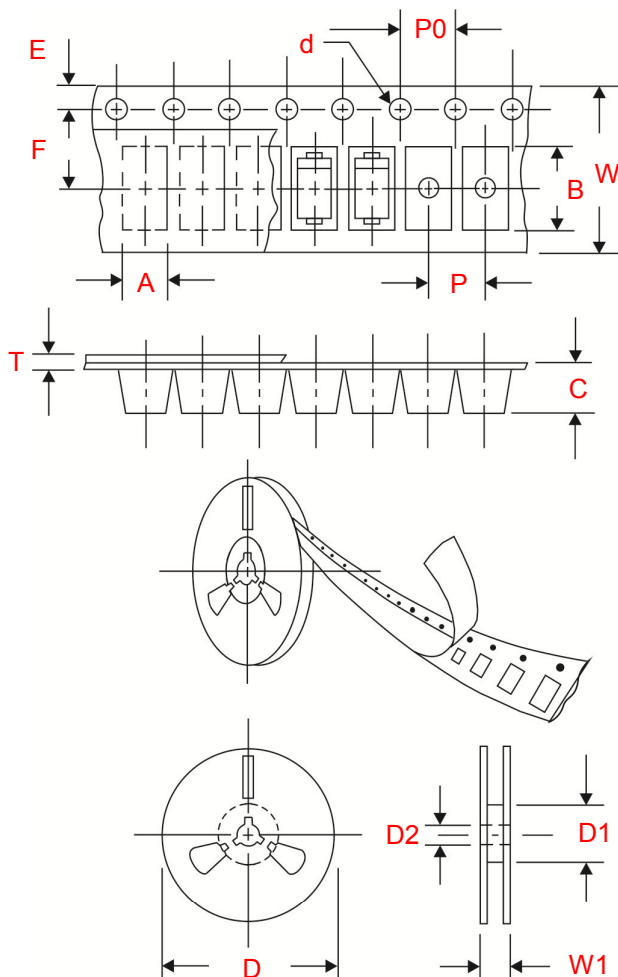
SMB (DO-214AA)	
Symbol	Dimensions
A	2.30
B	2.50
C	1.80
All Dimensions in millimeter	

Ordering information

Part Number	Package	Delivery mode
SK510B THRU SK520B	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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