

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage -20 to 200 Volts Forward Current -5.0 Amperes

### FEATURES

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0  
 For surface mounted applications  
 Metal silicon junction, majority carrier conduction  
 Low power loss, high efficiency  
 Built-in strain relief, ideal for automated placement  
 High forward surge current capability  
 High temperature soldering guaranteed:  
 250°C/10 seconds at terminals  
 AEC-Q101 qualified (Automotive grade with suffix "Q".)  
 Exsemi technology



### MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic body  
 Terminals: leads solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end  
 Mounting Position: Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Number	SYMBOLS	SS52B	SS53B	SS54B	SS55B	SS56B	SS58B	SS 510B	SS 515B	SS 520B	UNITS	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum average forward rectified current at $T_L$ (see fig.1)	$I_{(AV)}$	5.0									Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150.0									Amps	
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.49			0.53		0.80		0.85		Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	30					1				uA	
		200					100					
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	58.0									°C/W	
Operating junction temperature range	$T_J$	-55 to +150					-55 to +175					°C
Storage temperature range	$T_{STG}$	-55 to +150					-55 to +175					°C

**Note:** 1.P.C.B. mounted with 0. 0.6" x 0.6" (16 mm x 16 mm) pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

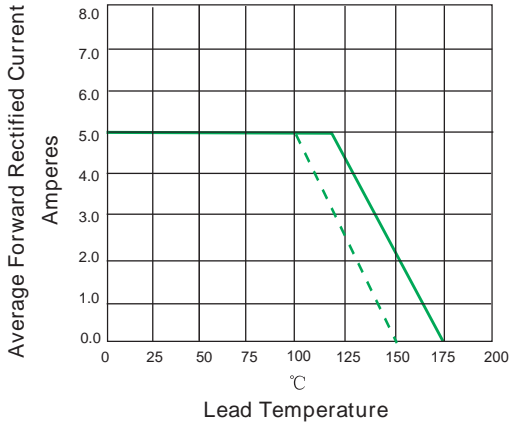


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

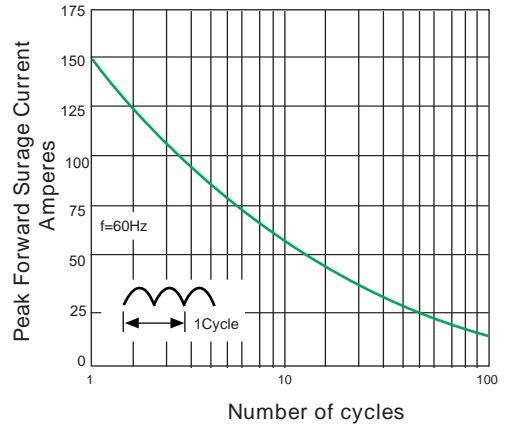


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

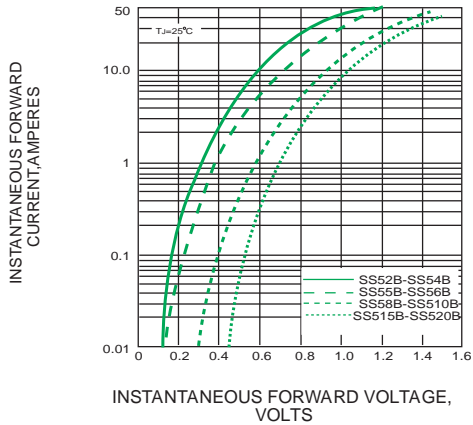
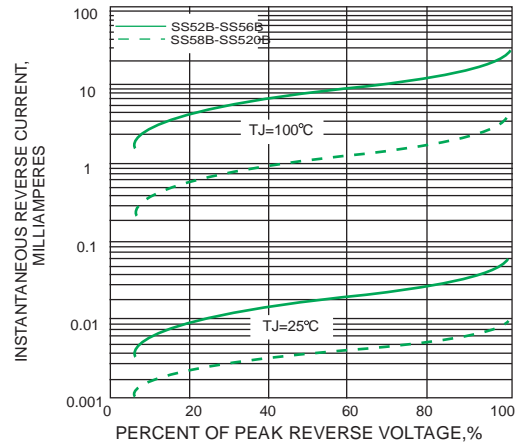
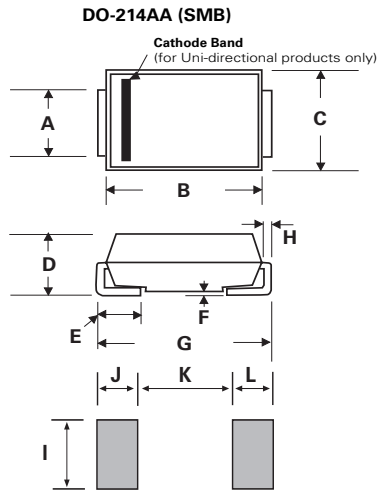


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Dimensions

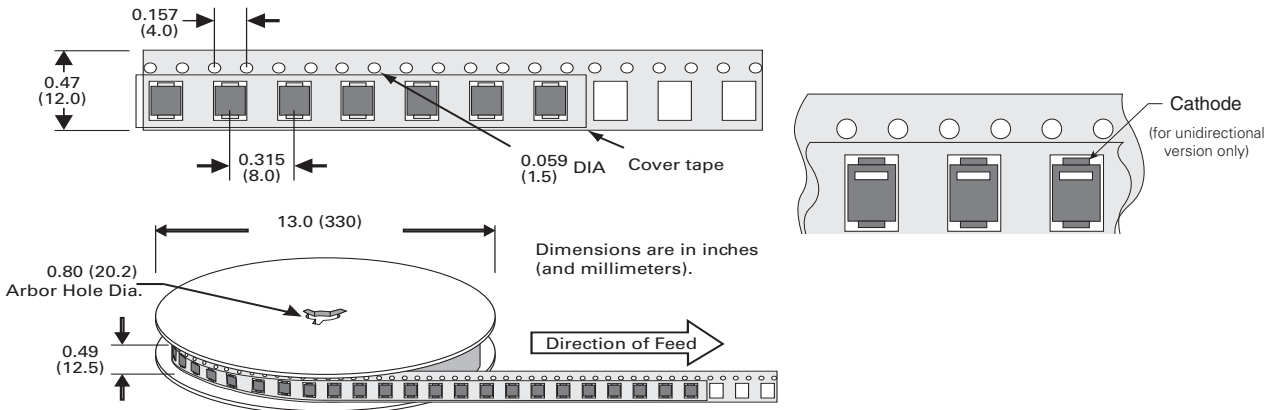


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.066	0.091	1.700	2.300
B	0.160	0.191	4.060	4.850
C	0.130	0.155	3.300	3.940
D	0.083	0.098	2.100	2.500
E	0.030	0.060	0.760	1.520
F	-	0.011	-	0.300
G	0.200	0.220	5.08	5.590
H	0.006	0.012	0.152	0.310
I	0.082	-	2.100	-
J	0.070	-	1.800	-
K	-	0.107	-	2.740
L	0.070	-	1.800	-

Ordering Information

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
SS5XXB	DO-214AA	3000	Tape & Reel - 12mm tape/13" reel	EIA STD RS-481

Tape and Reel Specication



Note: Devices are packde in accordance with EIA standard RS-481-Aand specification given above.