

### DO-214AA(SMB)

Dimensions in inches and (millimeters)



#### Ordering Information

Part Number	Remark
SSXB	General
SSXB-H	Halogen Free
SSXB-Q	Automotive

#### PRIMARY CHARACTERISTICS

$I_F$	8A
$V_{RRM}$	20~200V
$I_{FSM}$	125A
$V_F$	0.55V, 0.70V, 0.85V, 0.87V, 0.90V
$T_J$ max	125°C, 150°C

#### Features

- Low profile package
- Ideal for automated placement
- Guard Ring for over voltage protection
- Low forward voltage drop
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

#### Mechanical Data

- Case: DO-214AA(SMB)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.231 grams (approximate)

#### MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	SS 82B	SS 83B	SS 84B	SS 85B	SS 86B	SS 88B	SS 810B	SS 815B	SS 820B	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I <sub>F</sub>	8.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	125.0									A
Maximum Instantaneous Forward Voltage IF=8A @ 25°C	V <sub>F</sub>	0.55			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I <sub>R</sub>	0.5 30					0.2 10				mA
Typical Junction Capacitance(NOTE1)	C <sub>j</sub>	420			300		260		230	200	pF
Typical Thermal Resistance(NOTE2)	R <sub>θJa</sub> R <sub>θJc</sub>	80 50									°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125					-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C

#### NOTES:

- 1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC
- 2.Device mounted on FR-4 substrate, 1"\*1", 2oz, single-sided, PC boards with 0.1"\*0.15" copper pad.

## Schottky Barrier Rectifiers

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

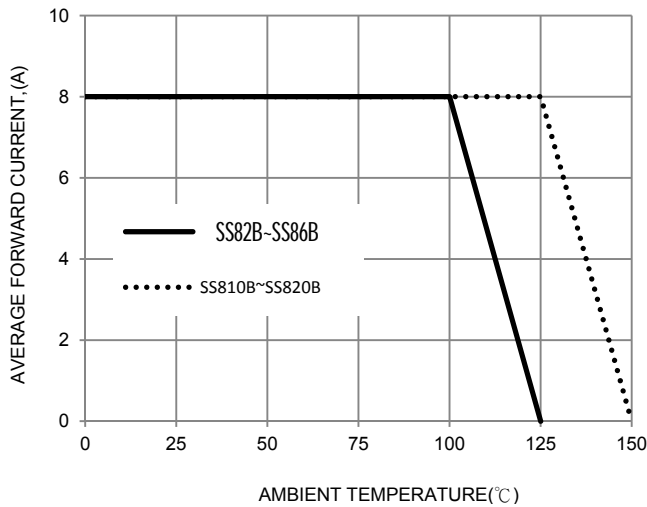


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

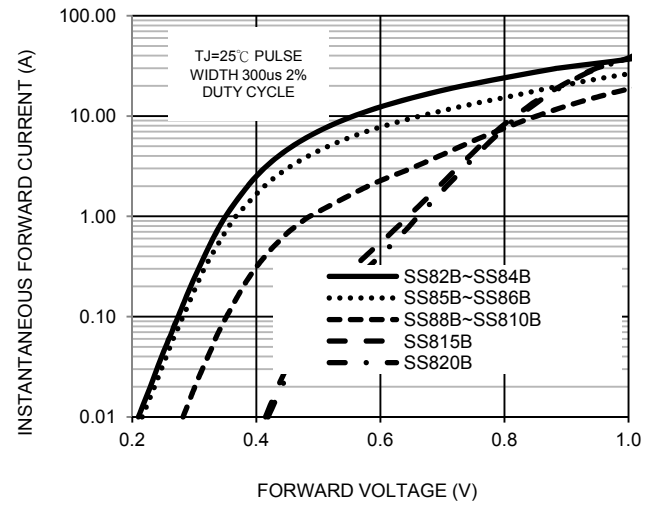


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

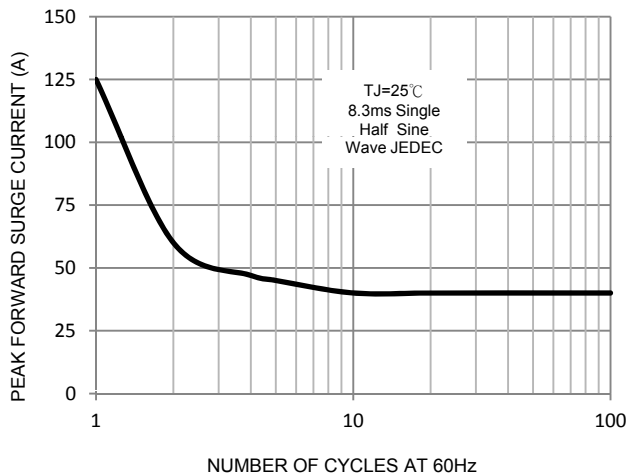


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

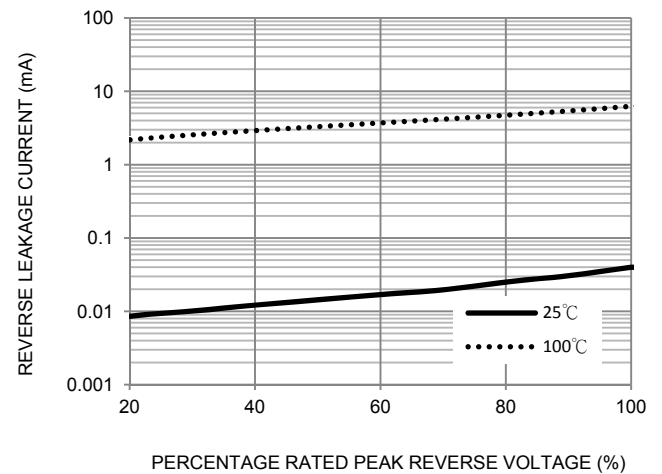


FIG. 5-TYPICAL JUNCTION CAPACITANCE

