

## SURFACE MOUNT RECTIFIER

### VOLTAGE 50 to 100 Volt CURRENT 3 Ampere

#### Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Easy pick and place
- Glass passivated junction
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)
- AEC-Q101 qualified (Automotive grade with suffix Q)
- Exsemi technology



#### Mechanical Data

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)

#### 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 , derate current by 20%.

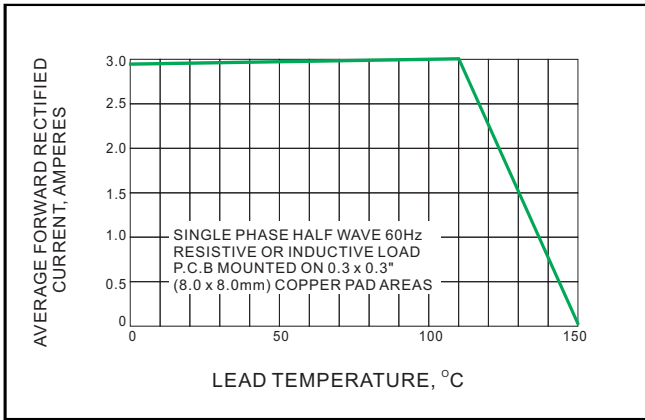
PARAMETER	SYMBOL	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	$I_{F(AV)}$	3							A
Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load	$I_{FSM}$	110							A
Maximum Forward Voltage at 3A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	$I_R$	0.8 100							$\mu A$
Maximum Junction Capacitance (Note 1)	$C_J$	30							pF
Typical Junction Resistance (Note 2)	$R_{\theta JL}$	35							$^{\circ}C / W$
	$R_{\theta JA}$	75							
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^{\circ}C$

#### NOTES :

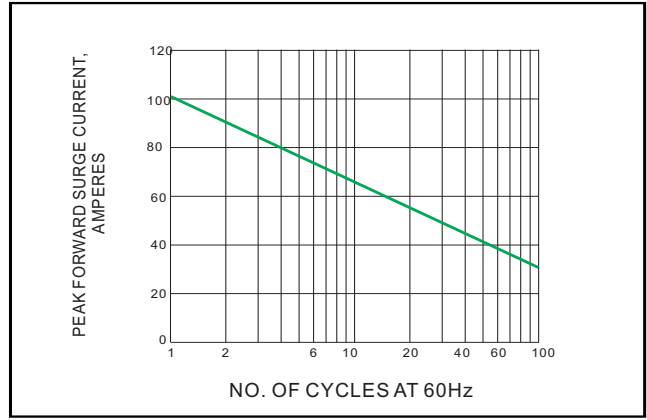
1. Measured at 1MHZ and applied  $V_R=4$  volts.
2.  $2.8 \times 8mm^2$  pads.

**RATING AND CHARACTERISTIC CURVES**

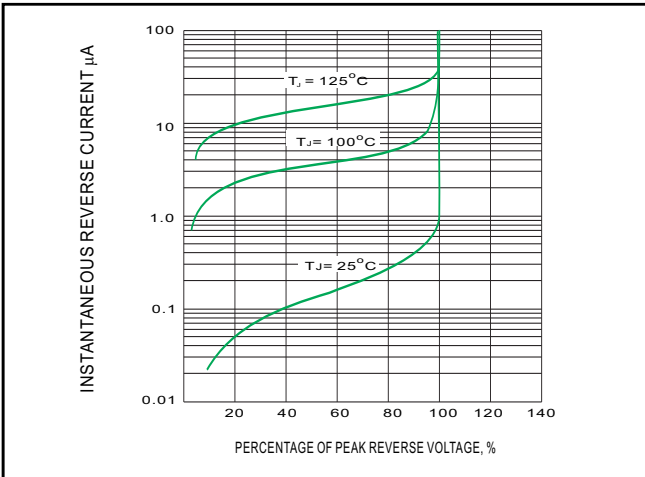
**Fig.1 FORWARD CURRENT DERATING CURVE**



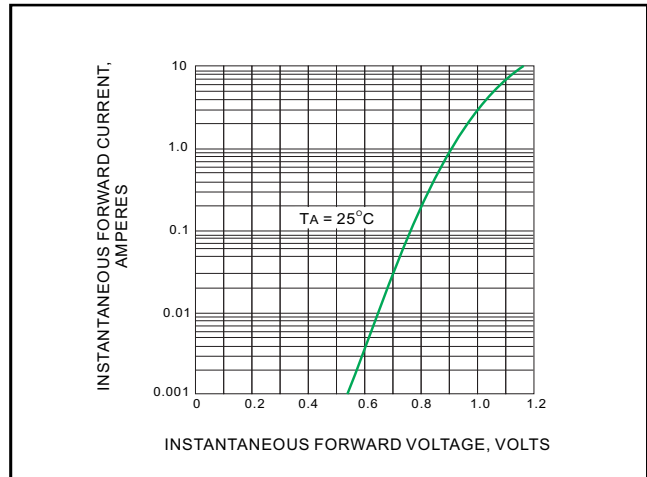
**Fig.2 MAXIMUM NON REPETITIVE PEAK SURGE CURRENT**



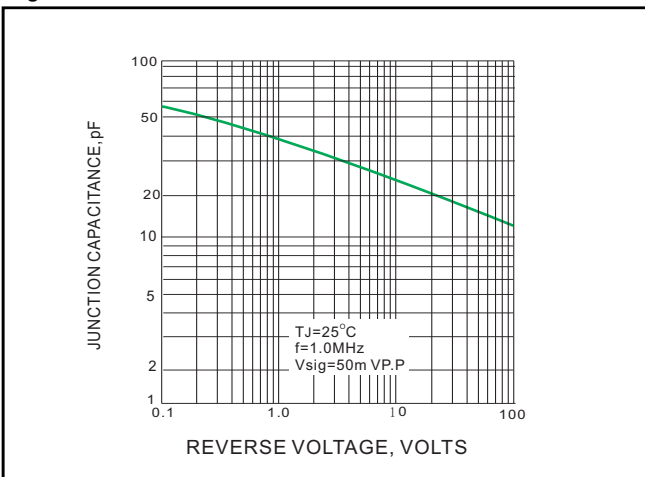
**Fig.3-TYPICAL REVERSE CHARACTERISTIC**



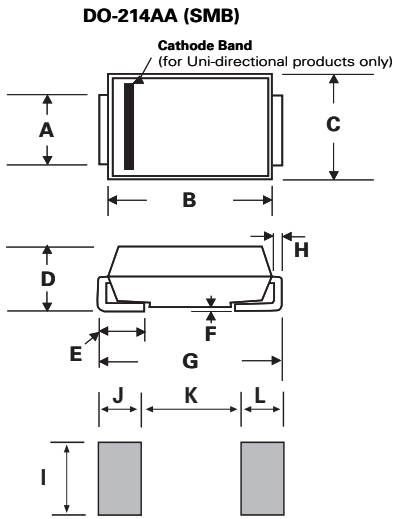
**FIG.4 TYPICAL FORWARD CHARACTERISTICS**



**Fig.5 TYPICAL JUNCTION CAPACITANCE**



Dimensions

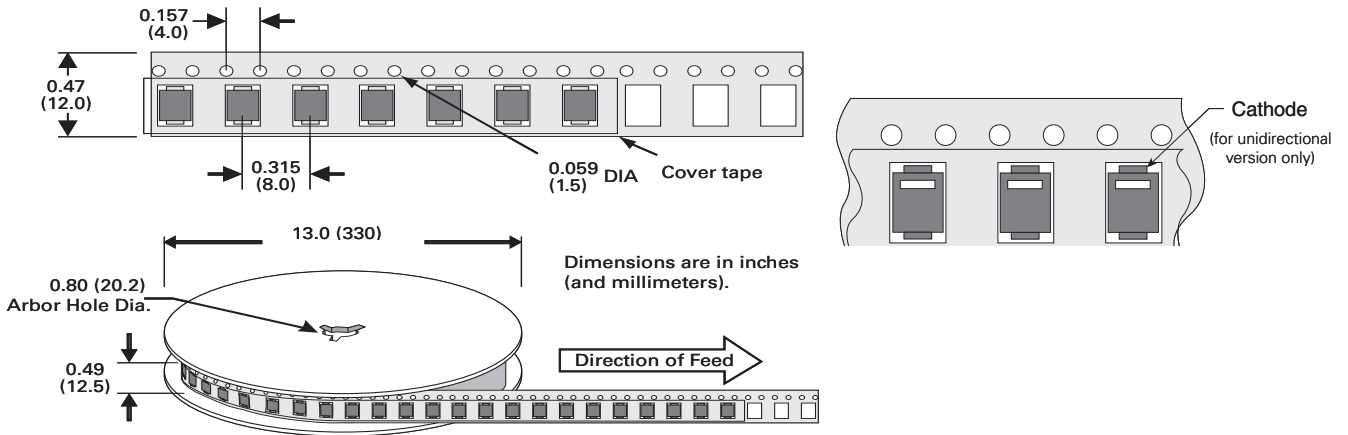


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.066	0.091	1.700	2.300
B	0.160	0.191	4.060	4.850
C	0.130	0.155	3.300	3.940
D	0.083	0.098	2.100	2.500
E	0.030	0.060	0.760	1.520
F	-	0.011	-	0.300
G	0.200	0.220	5.08	5.590
H	0.006	0.012	0.152	0.310
I	0.082	-	2.100	-
J	0.070	-	1.800	-
K	-	0.107	-	2.740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

Ordering Information

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
S3XB	DO-214AA	3000	Tape & Reel - 12mm tape/13" reel	EIA STD RS-481

Tape and Reel Specification



Note: Devices are packed in accordance with EIA standard RS-481-A and specification given above.