

SURFACE MOUNT RECTIFIER

VOLTAGE 50 to 1000 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)).
- Expsemi electronics



Mechanical Data

- Case: JEDEC DO-214AB 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	S3A	S3B	S3D	S3G	S3J	S3K	S3M	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	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I_R	0.9 100							μA
Maximum Junction Capacitance (Note 1)	C_J	30							pF
Typical Junction Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	35 75							$^{\circ}C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-50 to +150							$^{\circ}C$

NOTES :

- 1.Measured at 1MHZ and applied $V_R=4$ volts.
- 2.8 x 8mm² pads.

RATING AND CHARACTERISTIC CURVES

Fig.1 FORWARD CURRENT DERATING CURVE

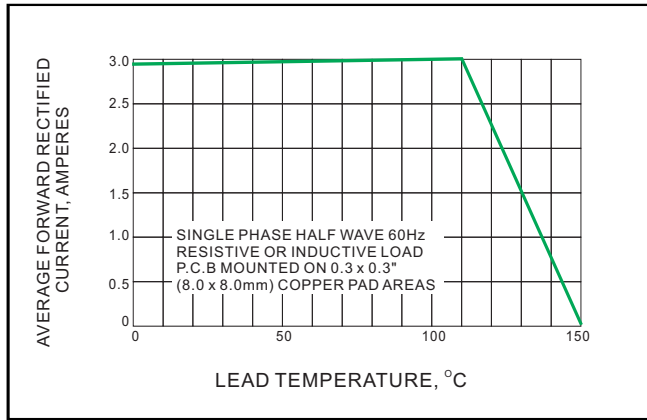


Fig.2 MAXIMUM NON REPETITIVE PEAK SURGE CURRENT

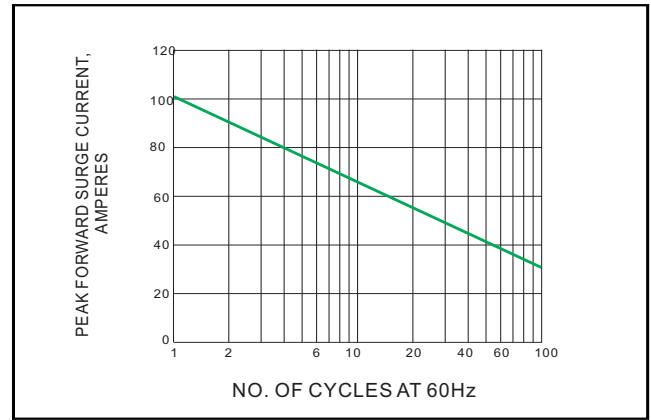


Fig.3-TYPICAL REVERSE CHARACTERISTIC

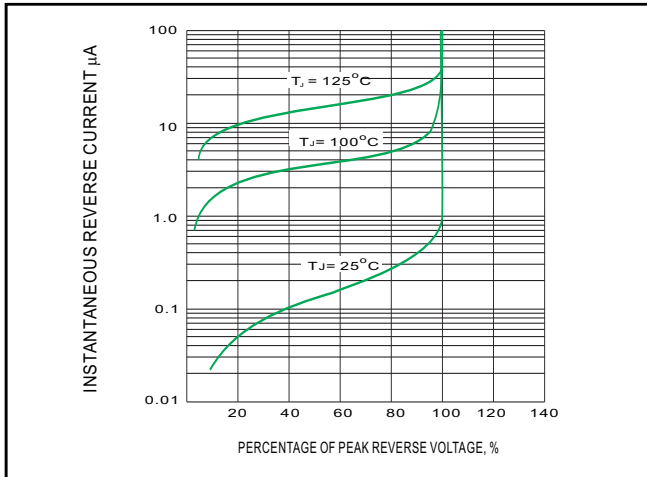


FIG.4TYPICALFORWARDCHARACTERISTICS

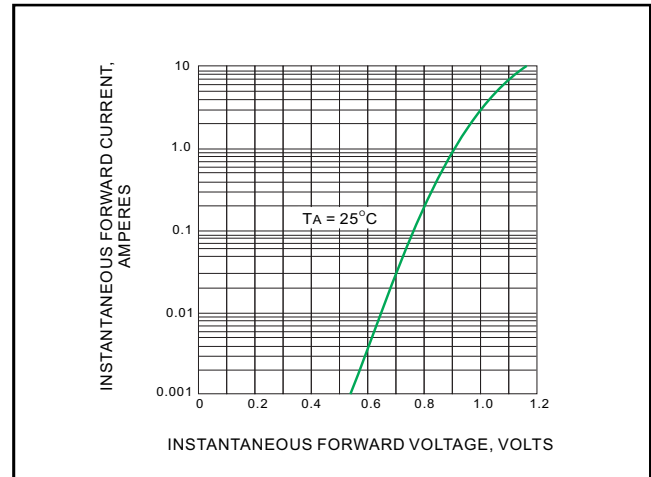
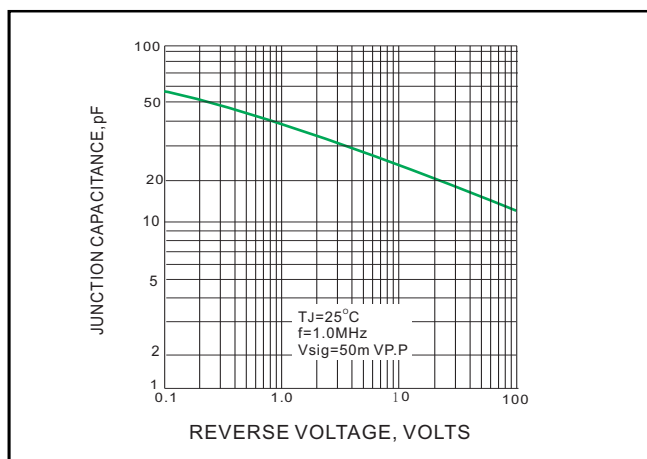
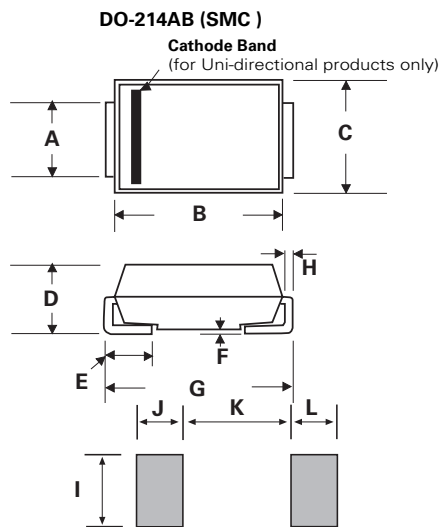


Fig.5 TYPICAL JUNCTION CAPACITANCE



Dimensions

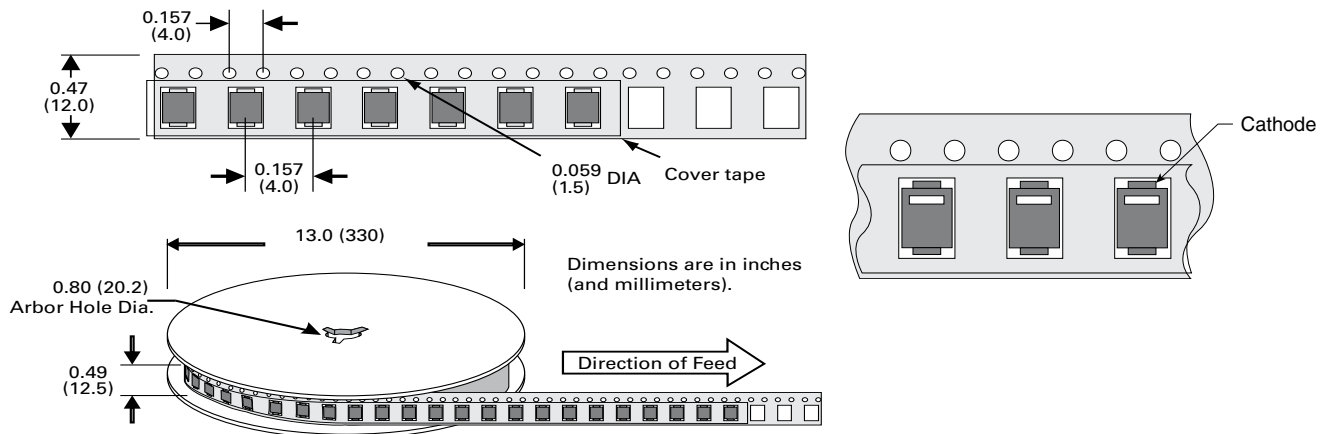


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.108	0.128	2.750	3.250
B	0.260	0.291	6.600	7.400
C	0.220	0.246	5.590	6.250
D	0.078	0.108	1.980	2.750
E	0.030	0.060	0.760	1.520
F	0.002	0.008	0.051	0.203
G	0.303	0.323	7.700	8.200
H	0.006	0.012	0.152	0.305
I	0.129	-	3.300	-
J	0.094	-	2.400	-
K	-	0.165	-	4.200
L	0.094	-	2.400	-

Packaging Options

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
S3X	DO-214AB	3000	Tape & Reel - 16mm 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.