

#### SURFACE MOUNT GLASS PASSIVATED RECTIFIER

S3A THRU S3M

50V-1000V 3.0A

#### **FEATURES**

- · Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- · For surface mounted applications
- · Low profile package
- · Built-in strain relief
- · Easy pick and place
- · glass passivated iunction
- High temperature soldering guaranteed: 260°C /10 seconds at terminals

## **Mechanical Data**

Case: Molded Plastic

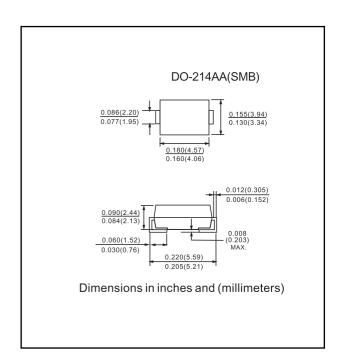
Case Material - UL Flammability Rating Classification 94V-0

Moisture sensitivity: Level 1 per J-STD-020A

Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band or Cathode Notch

Weight: SMB 0.093 grams (approx) SMC 0.21 grams (approx)



### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Characteristic		Symbol	S3A	S3B	S3D	S3G	S3J	S3K	S3M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		Vrrm Vrwm Vr	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage		VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> = 75°C		lo	3.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	100							А
Forward Voltage @I <sub>F</sub> = 3.0A		VFM	1.20							V
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$		IRM	5.0 250							μA
Reverse Recovery Time (Note 1)		trr	2.5							μS
Typical Junction Capacitance (Note 2)		Cj	60							pF
Typical Thermal Resistance (Note 3)		R⊕JL	13							K/W
Operating and Storage Temperature Range		Тj, Tsтg	-65 to +150							°C

Note: 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{rr} = 0.25A$ ,

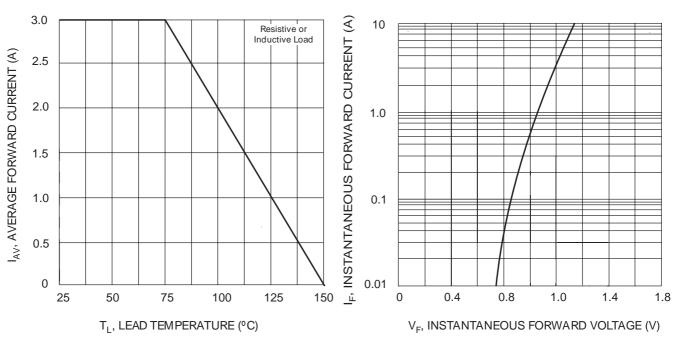
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.



# SEMI S3M

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Fig. 1 Forward Current Derating Curve

Fig. 2 Typical Forward Characteristics

