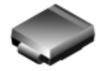


# Discrete POWER & Signal Technologies

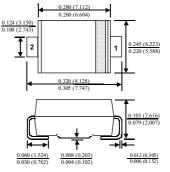
### **S3A - S3M**

### **Features**

- Low profile package.
- Glass passivated junction.



SMC/DO-214AB
COLOR BAND DENOTES CATHODE



## 3.0 Ampere General Purpose Rectifiers

### **Absolute Maximum Ratings\***

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
lo	Average Rectified Current @ T <sub>A</sub> = 100°C	3.0	Α
İf(surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	100	А
P <sub>D</sub>	Total Device Dissipation  Derate above 25°C	2.7 21	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient **	47	°C/W
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
TJ	Operating Junction Temperature	-55 to +150	°C

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

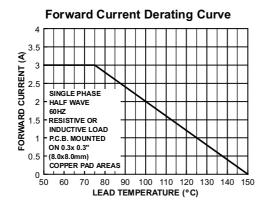
Parameter	Device						Units	
	3A	3B	3D	3G	3J	3K	3M	1
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Current @ rated $V_R$ $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$ Maximum Forward Voltage @ 3.0 A	5.0 250 1.2							μΑ μΑ V
Maximum Reverse Recovery Time I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A	2.5						μS	
Typical Junction Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	60						pF	

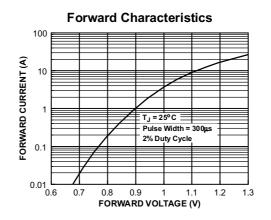
<sup>\*\*</sup> Device mounted on FR-4 PCB 0.013 mm.

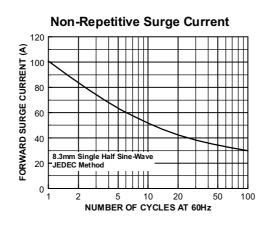
### **General Purpose Rectifiers**

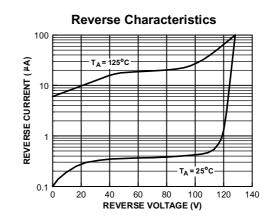
(continued)

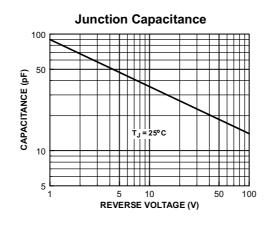
### **Typical Characteristics**











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