

# S3A - S3M

**PRV : 50 - 1000 Volts**  
**Io : 3.0 Amperes**

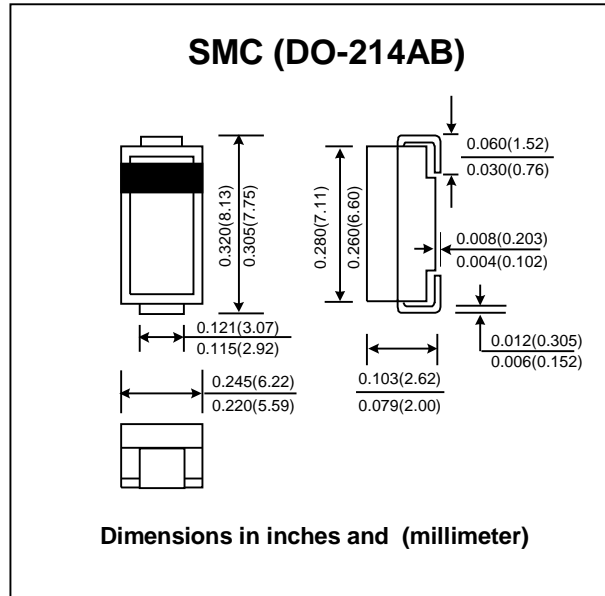
**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

**MECHANICAL DATA :**

- \* Case : SMC Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Lead Formed for Surface Mount
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.26 gram

## SURFACE MOUNT RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

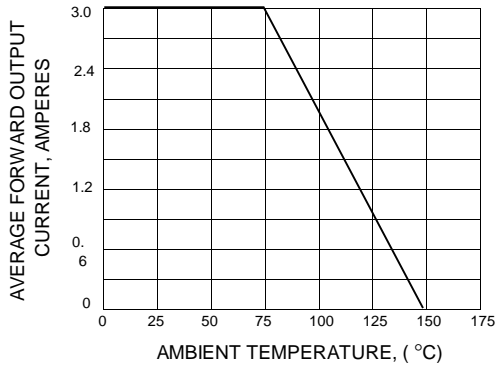
RATING	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	UNITS	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Current Ta = 75 °C	I <sub>F</sub>	3.0								A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200								A
Maximum Forward Voltage at I <sub>F</sub> = 3.0 Amps.	V <sub>F</sub>	1.0								V
Maximum DC Reverse Current Ta = 25 °C	I <sub>R</sub>	5.0								μA
at rated DC Blocking Voltage Ta = 100 °C	I <sub>R(H)</sub>	50								μA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	50								pF
Junction Temperature Range	T <sub>J</sub>	- 65 to + 150								°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150								°C

**Note :**

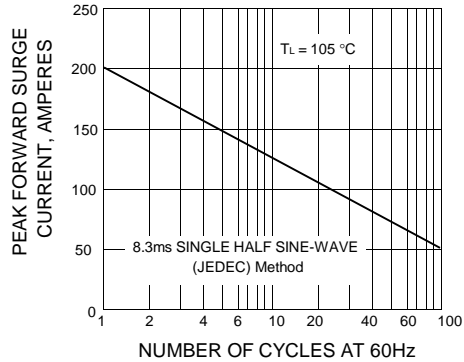
(1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

**RATING AND CHARACTERISTIC CURVES ( S3A - S3M )**

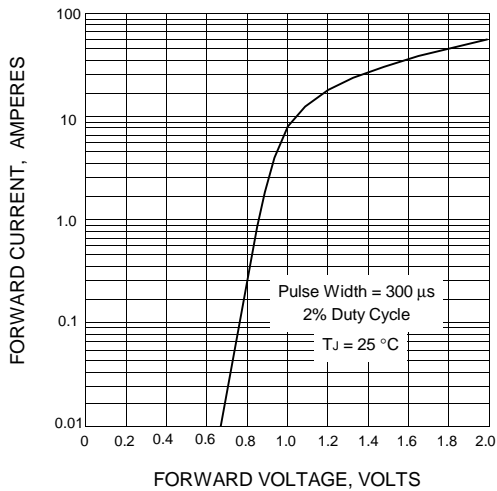
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



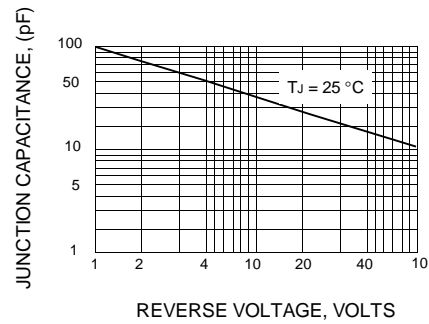
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

