

# SN5A - SN5M

**PRV : 50 - 1000 Volts**  
**Io : 5.0 Amperes**

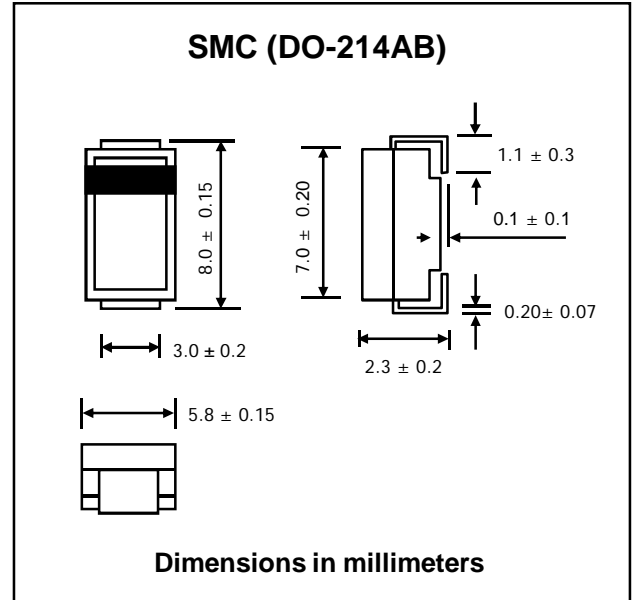
## FEATURES :

- \* 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 : 0.21 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	SN5A	SN5B	SN5D	SN5G	SN5J	SN5K	SN5M	UNIT
Maximum Repetitive 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 $T_a = 60^\circ\text{C}$	$I_F$	5.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	300							A
Maximum Forward Voltage at $I_F = 5.0$ Amps.	$V_F$	1.1							V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$	$I_R$	20							$\mu\text{A}$
at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_{R(H)}$	50							$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_J$	50							pF
Junction Temperature Range	$T_J$	- 65 to + 175							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175							$^\circ\text{C}$

### Notes :

(1) Measured at 1.0 MHz and applied reverse voltage of 0.0Vdc

## RATING AND CHARACTERISTIC CURVES ( SN5A - SN5M )

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

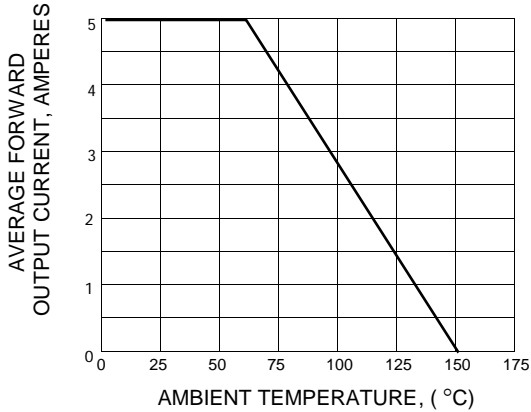


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

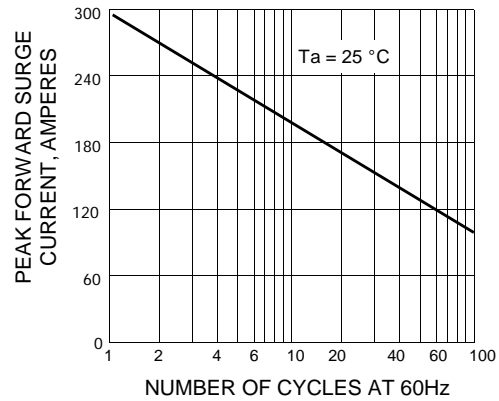


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

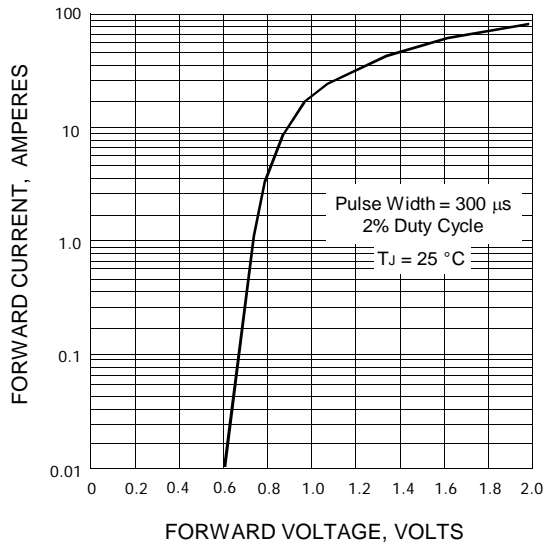


FIG.4 - TYPICAL JUNCTION CAPACITANCE

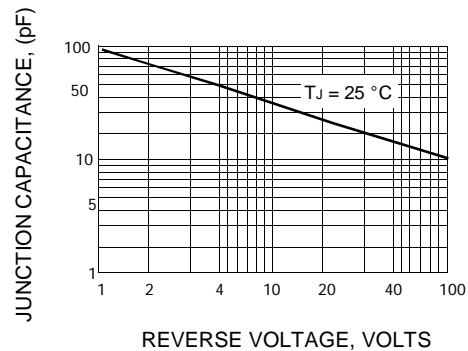
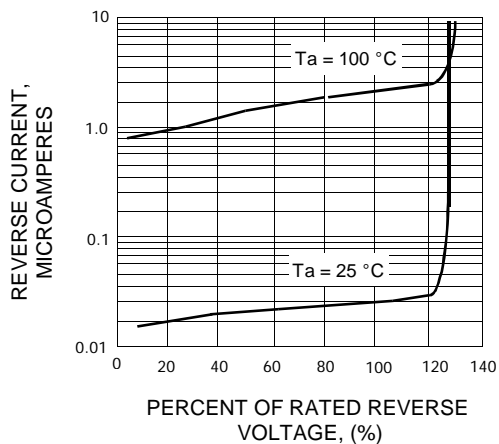


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



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