

# SR3A THRU SR3M

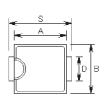
## SURFACE MOUNT FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 1000 Volts

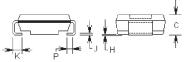
Forward Current - 3.0 Amperes

### Features

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 260°C/10 seconds at terminals
- Fast recovery times for high efficiency



SMC



#### **Mechanical Data**

- Case: SMC molded plastic
- Terminals: Solder plated solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Weight: 0.007 ounce, 0.25 gram

D IM E N S IO N S										
DIM	inches		m	Note						
	M in.	Max.	M in .	Max.	Note					
А	0.260	0.280	6.60	7.11						
В	0.220	0.240	5.59	6.10						
С	0.075	0.095	1.90	2.41						
D	0.115	0.121	2.92	3.07						
н	0.0020	0.0060	0.051	0.152						
J	0.006	0.012	0.15	0.30						
к	0.030	0.050	0.76	1.27						
Р	0.020	REF	0.51							
s	0.305	0.320	7.75	8.13						

# **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%.

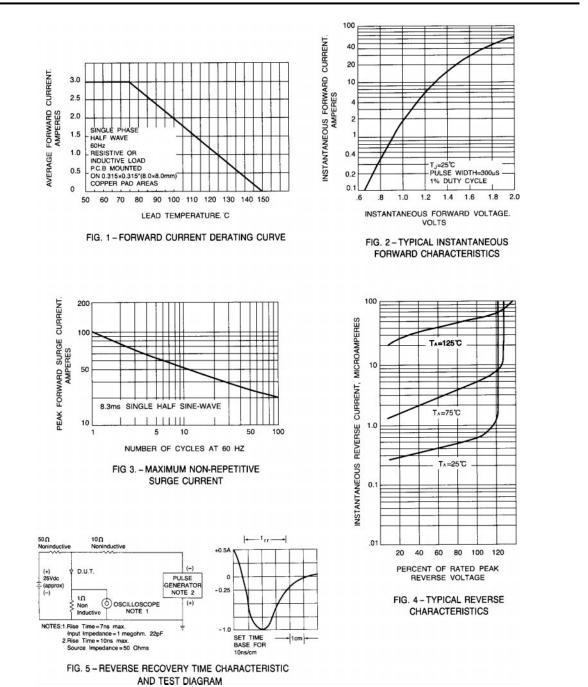
	Symbols	SR3A	SR3B	SR3D	SR3G	SR3J	SR3K	SR3M	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_{\rm L}\text{=}75^\circ\!\!\!\!\!\!{\rm C}$	I <sub>(AV)</sub>	3.0							Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method)	I <sub>fsm</sub>	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	1.3							Volts
$\begin{array}{llllllllllllllllllllllllllllllllllll$	I <sub>R</sub>	10.0 350.0							μA
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	150 250 500						00	nS
Typical junction capacitance (Note 2)	C	60.0							ρF
Maximum thermal resistance (Note 3)	R <sub>⊎JL</sub> R <sub>⊎JA</sub>	15.0 50.0						°C/W	
Operating and storage temperature range	T <sub>J</sub> , T <sub>stg</sub>	-50 to +150						°C	

Notes:

(1) Reverse recovery test conditions: I\_{\rm F}=0.5A, I\_{\rm R}=1.0A, I\_{\rm r}=0.25A

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(3) 8.0mm<sup>2</sup> (0.013mm thick) land areas



#### **RATINGS AND CHARACTERISTIC CURVES**