

SR3A THRU SR3M

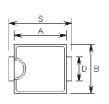
SURFACE MOUNT FAST SWITCHING RECTIFIER

Reverse Voltage - 50 to 1000 Volts

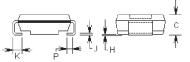
Forward Current - 3.0 Amperes

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%.

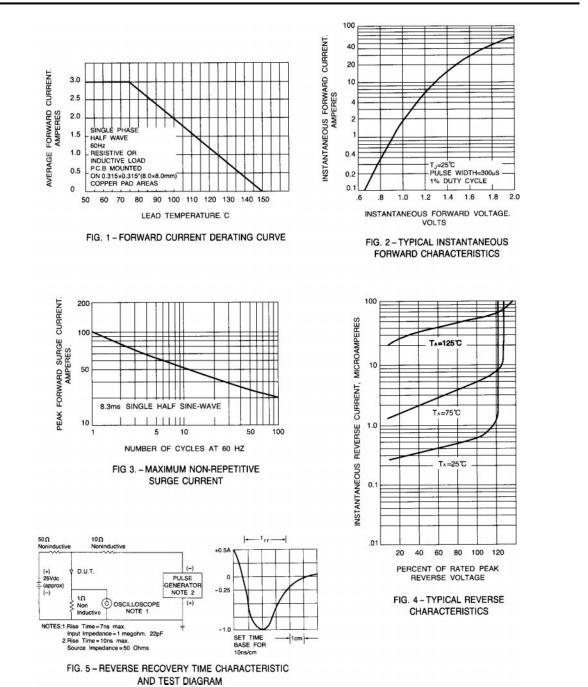
| | Symbols | SR3A | SR3B | SR3D | SR3G | SR3J | SR3K | SR3M | Units |
|--|--------------------------------------|---------------|------|------|------|------|------|------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current at $T_{\rm L}\text{=}75^\circ\!\!\!\!\!\!{\rm C}$ | I _(AV) | 3.0 | | | | | | | Amps |
| Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) | I _{fsm} | 100.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 3.0A | V _F | 1.3 | | | | | | | Volts |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$ | I _R | 10.0 350.0 | | | | | | | μA |
| Maximum reverse recovery time (Note 1) | T _{rr} | 150 250 500 | | | | | | 00 | nS |
| Typical junction capacitance (Note 2) | C | 60.0 | | | | | | | ρF |
| Maximum thermal resistance (Note 3) | R _{⊎JL} R _{⊎JA} | 15.0 50.0 | | | | | | °C/W | |
| Operating and storage temperature range | T _J , T _{stg} | -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) 8.0mm² (0.013mm thick) land areas



RATINGS AND CHARACTERISTIC CURVES