

## RS3A-RS3M

### SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

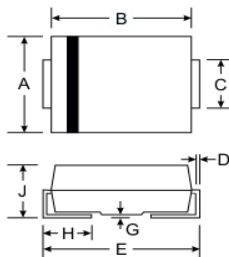
**VOLTAGE RANGE: 50V-1000 V**  
**CURRENT: 3.0 A**

#### Features

- Glass Passivated Die Construction
- Fast Recovery Time for High Efficiency
- Low Forward Voltage Drop and High Current Capability
- Ideally Suited for Automatic Assembly
- Plastic Material: UL Flammability Classification Rating 94V-0

#### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

#### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Unit
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 rectified current at T <sub>L</sub> =75°C	I <sub(av)< sub=""></sub(av)<>	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100.0							A
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	1.3							V
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 100.0							μA
Maximum reverse recovery time (NOTE 1)	t <sub>rr</sub>	150				250	500		ns
Typical junction capacitance (NOTE 2)	C <sub>J</sub>	60.0							pF
Typical thermal resistance (NOTE 3)	R <sub>θJA</sub>	50.0							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +150							°C

**Note:** 1. Reverse recovery condition I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A  
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

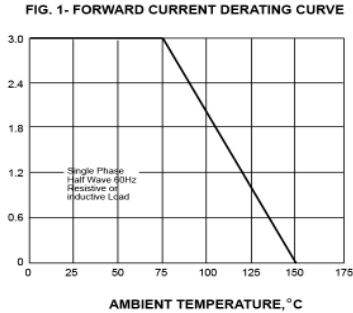
## RS3A-RS3M

SURFACE MOUNT FAST RECOVERY RECTIFIER

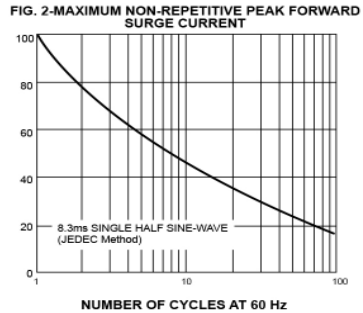
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

### RATINGS AND CHARACTERISTIC CURVES RS3A THRU RS3MA

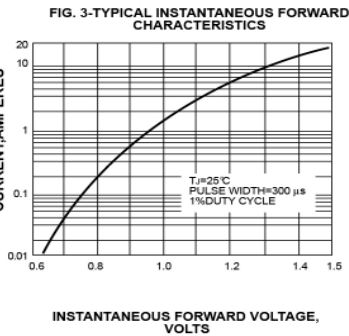
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



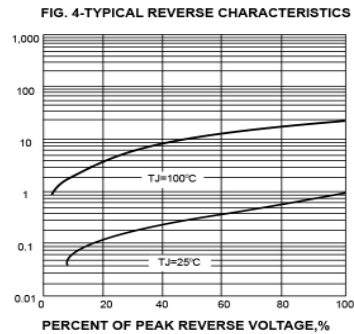
PEAK FORWARD SURGE CURRENT, AMPERES



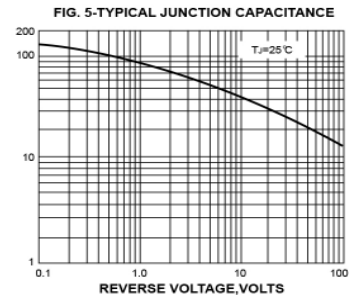
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

