

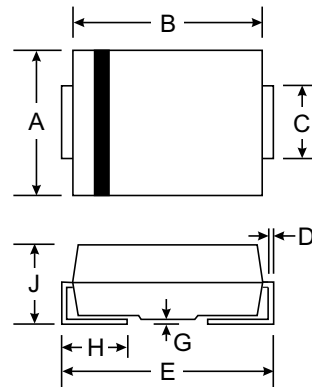
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 1.0 A**

### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

### 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	Unit	FR1A	FR1B	FR1D	FR1G	FR1J	FR1K	FR1M	Unit
Maximum Recurrent 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 @ T <sub>A</sub> = 75°C	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Maximum Instantaneous Forward Voltage at 1.0 A	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> = 125°C	I <sub>R</sub>	5.0 100							μA
Maximum Full Load Reverse Current Full Cycle Average @ T <sub>A</sub> = 75°C		50							μA
Maximum Reverse Recovery Time (See Note 1)	t <sub>rr</sub>	150				250	500		ns
Maximum Thermal Resistance (See Note 2)	R <sub>θJL</sub>	30							°C/W
Typical Junction Capacitance (See Note 3)	C <sub>J</sub>	15							pF
Operating and Storage Temperature Rating	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°C

- Notes:
1. Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>RR</sub> = 0.25A
  2. Thermal Resistance from junction to lead with 6.0mm<sup>2</sup> copper pads
  3. Measured at 1.0MHz and applied reverse voltage of 4.0V

## RATINGS AND CHARACTERISTIC CURVES FR1A THRU FR1M

