

FR1A THRU FR1K

FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE: 50-800V

CURRENT: 1.0A

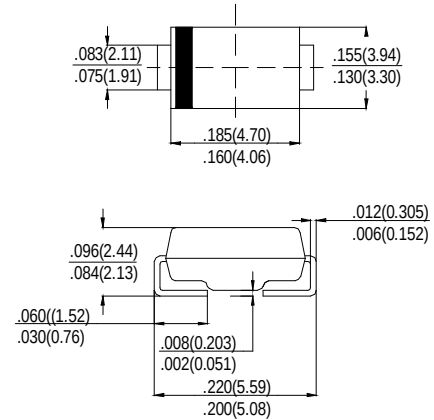
FEATURES

- Ideal for surface mounted applications
- Low leakage current
- Glass passivated junction

MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** As marked
- **Mounting position:** Any
- **Weight:** 0.064 grams

SMB (DO-214AA)



Dimensions in inches and (millimeters)

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%.

		SYMBOL	FR1A	FR1B	FR1D	FR1G	FR1J	FR1K	units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	V
Maximum Average Forward rectified Current at T _A =75°C		I_o	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)		I_{FSM}	30						A
Maximum forward Voltage at 1.0A DC		V_F	1.3						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A =25°C	I_R	5.0						µA
	@ T _A =125°C		50						
Typical Thermal Resistance (Note3)		R_{θJL}	30						°C/W
Maximum Reverse Recovery Time (Note 2)		t_{rr}	150				250	500	nS
Typical Junction Capacitance (Note1)		C_J	15						pF

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0 volts

2. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$ 3. Thermal Resistance (Junction to Ambient), $.24\text{in}^2$ (6.0mm^2) copper pads to each terminal