

FR1A THRU FR1K

FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE: 50-800V

CURRENT: 1.0A

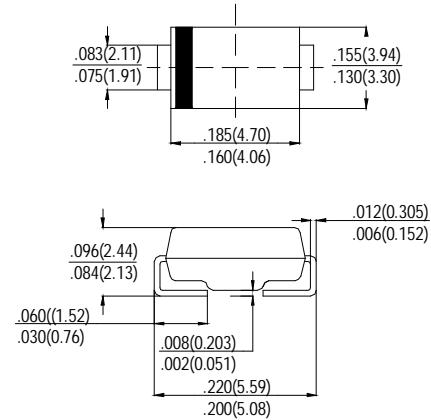
FEATURES

- 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 $T_A=75^\circ\text{C}$	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	@ $T_A=25^\circ\text{C}$	5.0						μA
	@ $T_A=125^\circ\text{C}$	50						
Typical Thermal Resistance (Note3)	$R_{\theta JL}$	30						$^\circ\text{C/W}$
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), .24in² (6.0mm²) copper pads to each terminal