

FS2A THRU FS2M

1.5 AMP FAST RECOVERY SILICON RECTIFIERS



VOLTAGE RANGE
50 to 1000 Volts

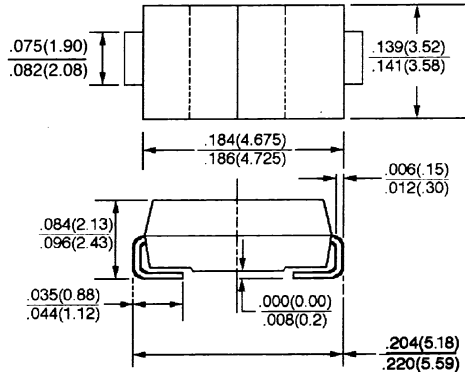
FEATURES

- * For surface mount applications
- * Extremely low thermal resistance
- * Easy pick and place
- * High temp soldering: 250°C for 10 seconds at terminals
- * Superfast recovery times for high efficiency

MECHANICAL DATA

- * CASE: Molded plastic
- * Terminals: Solder plated
- * Polarity: Indicated by cathode band
- * Standard packaging: 12mm tape (EIA STD RS-481)
- * Weight: 0.100 grams

SMB/DO-214AA



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Maximum thermal Resistance: 15°C/W Junction to Lead.

TYPE NUMBER	SYMBOLS	FS2A	FS2B	FS2D	FS2G	FS2J	FS2K	FS2M	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, (8.3 ms half sine)	I_{FSM}	50.0							A
Maximum Instantaneous Forward Voltage $T_J = 25^\circ\text{C}$ $I_{FM} = 1.5\text{A}$ (Note 1)	V_F	1.3							V
Maximum D. C Reverse Current at Rated D. C. Blocking Voltage	I_R	5 200							μA
Maximum Reverse Recovery time (Note 2)	T_{rr}	150				250	500		nS
Typical Junction Capacitance (Note 3)	C_J	25							pF
Operating and Storage Temperature Range	T_J, T_{STG}	- 50 to + 150							°C

- NOTES: 1. Pulse test: Pulse width 300 μsec , 1% duty cycle.
 2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
 3. Measured at 1 MHz and applied reverse Voltage $V_R = 4.0$ volts D. C.

RATINGS AND CHARACTERISTIC CURVES (FS2A THRU FS2M)

Figure 1 – Typical Forward Characteristics

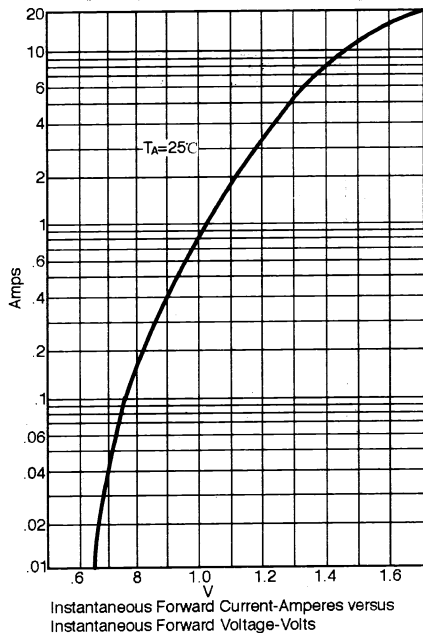


Figure 2 – Forward Derating Curve

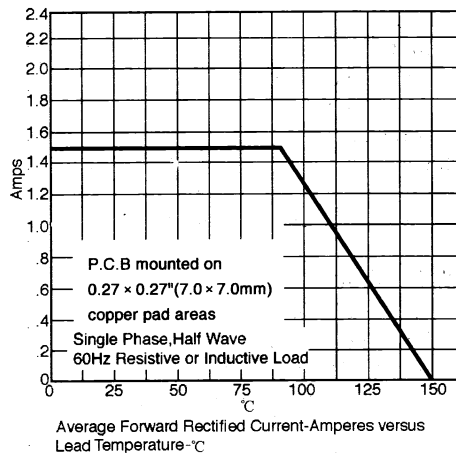
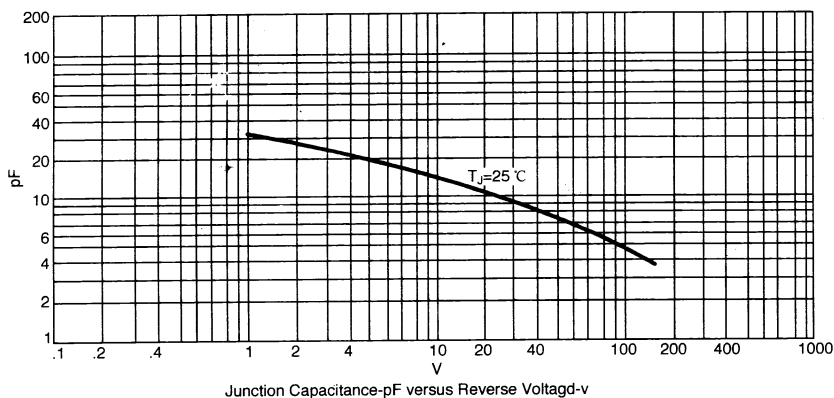


Figure 3 – Junction Characteristics



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Figure 4 – Peak Forward Surge Current

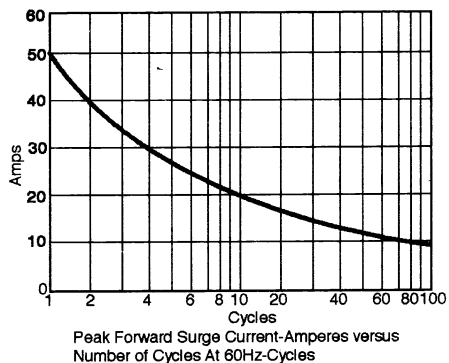
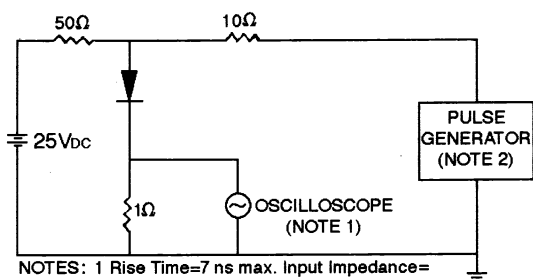
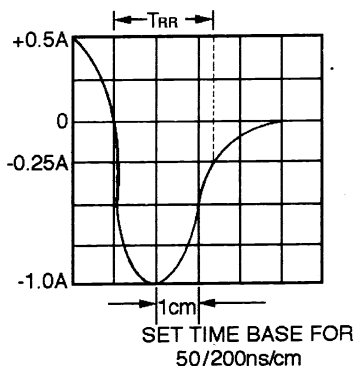


Figure 5 – Reverse Recovery Time Characteristic And Test Circuit Diagram



- NOTES: 1 Rise Time=7 ns max. Input Impedance= 1 megohm 22pF
 2 Rise Time=10ns max. Source Impedance= 50 ohms
 3 Resistors are non-inductive



SUGGESTED SOLDER PAD LAYOUT

