FR2A THRU FR2K

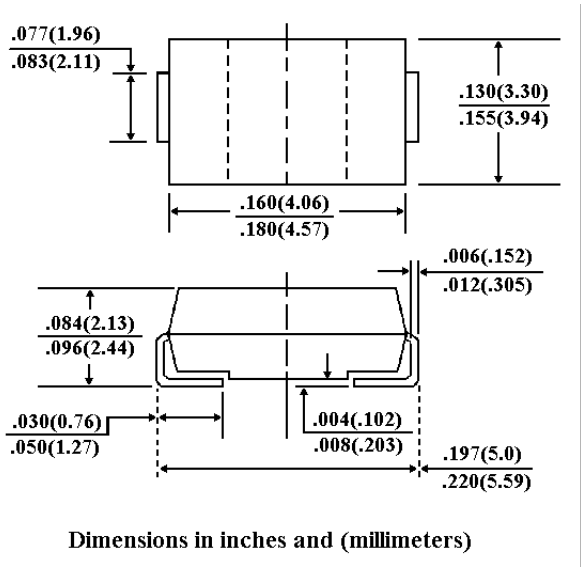
SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE - 50 to 800 Volts CURRENT - 2.0 Amperes

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Fast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260 ¢J/10 seconds at terminals

SMB/DO-214AA



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

Resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOLS	FR2A	FR2B	FR2D	FR2G	FR2J	FR2K	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current, at T_L=90 ¢J	$I_{(AV)}$	2.0						Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	50.0						Amps
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.30						Volts
Maximum DC Reverse Current T_A=25 ¢J At Rated DC Blocking Voltage T_A=125 ¢J	I_R	5.0 200						£g A
Maximum Reverse Recovery Time (Note 1) T_J=25 ¢J	T_{RR}	150				250	500	nS
Typical Junction capacitance (Note 2)	C_J	40						$_P$F
Maximum Thermal Resistance (Note 3)	R £KJL	20.0						¢J/W
Operating and Storage Temperature Range	T_J,T_{STG}	-50 to +150						¢J

NOTES:

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A
2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES

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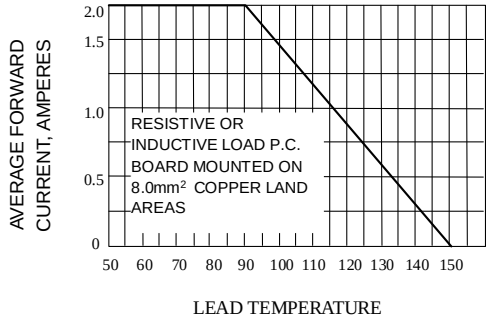

Fig. 1-FORWARD CURRENT DERATING CURVE

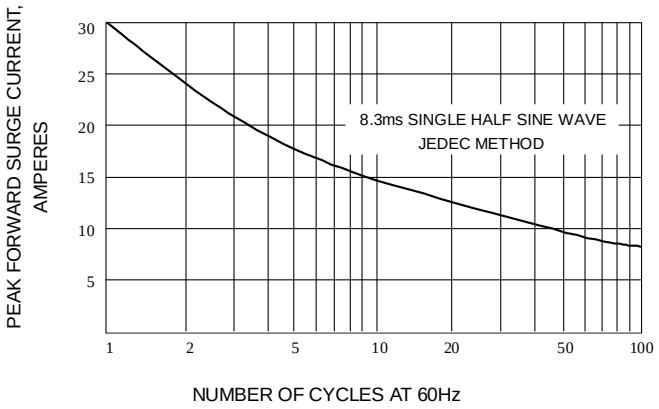

Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

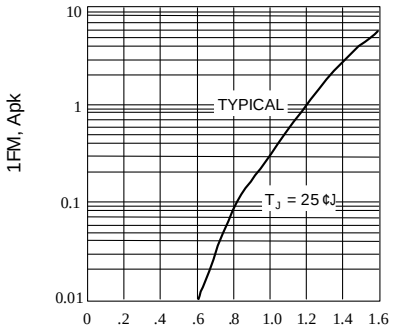

Fig. 3-FORWARD CHARACTERISTICS

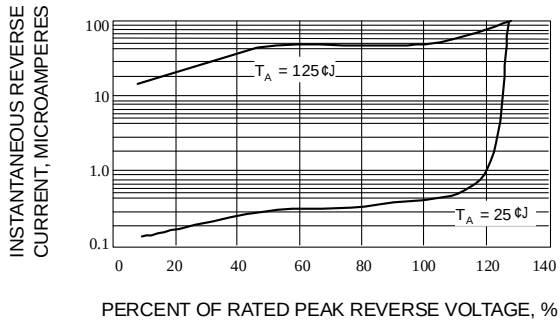

Fig. 4-TYPICAL REVERSE CHARACTERISTICS

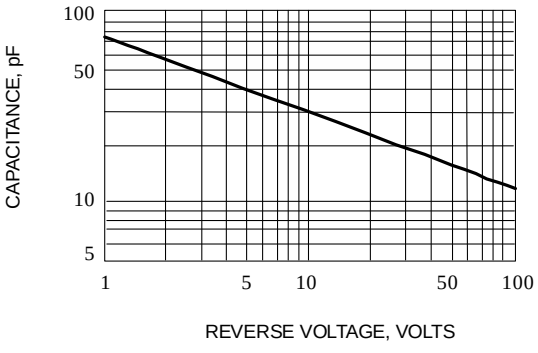

Fig. 5-TYPICAL JUNCTION CHARACTERISTICS

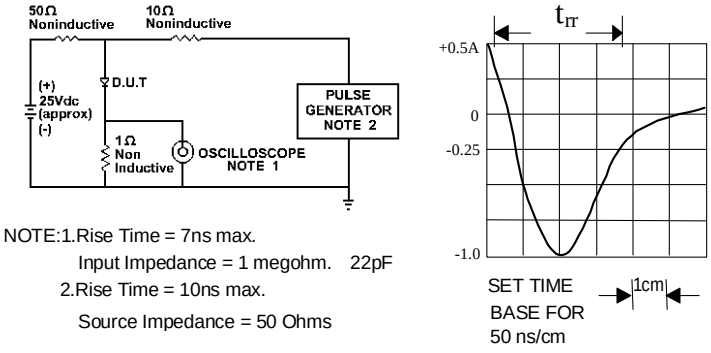

Fig. 6-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM