RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

FM5820B THRU FM5822B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 3.0 Amperes

FEATURES

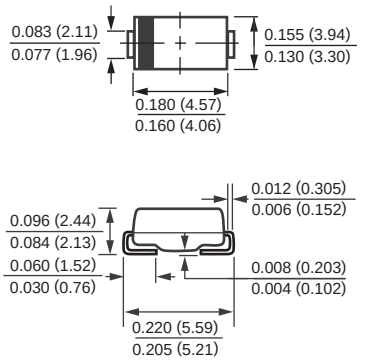
* Ideal for surface mounted applications
* Low leakage current
* Metallurgically bonded construction
* Mounting position: Any
* Weight: 0.098 gram

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O



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, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	FM5820B	FM5821B	FM5822B	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	I_O	3.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80			Amps
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$	25			°C/W
Typical Junction Capacitance (Note 2)	C_J	200			pF
Operating Temperature Range	T_J	-55 to + 150			°C
Storage Temperature Range	T_{STG}	-55 to + 150			°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	FM5820B	FM5821B	FM5822B	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC		V_F	.475	.500	.525	Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	2.0			mAmps
at Rated DC Blocking Voltage	@T_A = 100°C		20			mAmps

NOTES : 1. Thermal Resistance (Junction to Ambient).
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2002-11

RATING AND CHARACTERISTIC CURVES (FM5820B THRU FM5822B)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

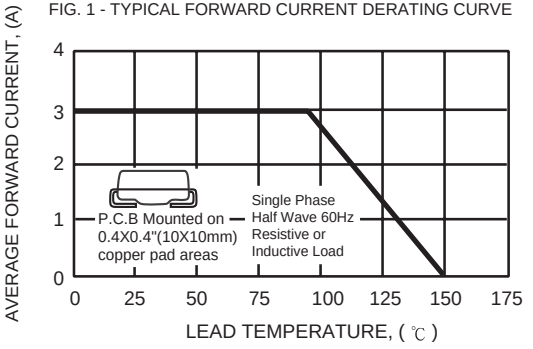


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

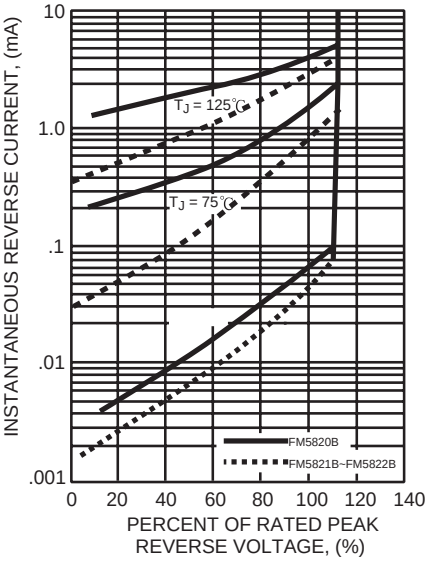


FIG. 3 - MAXIMUM NON-REPETITIVE
FORWARD SURGE CURRENT

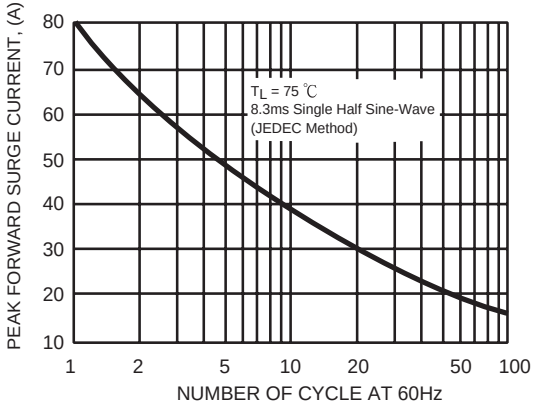


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

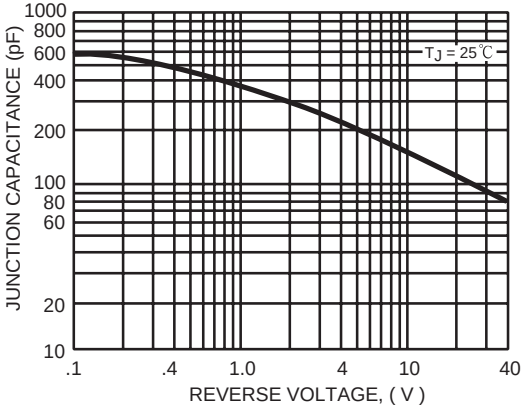
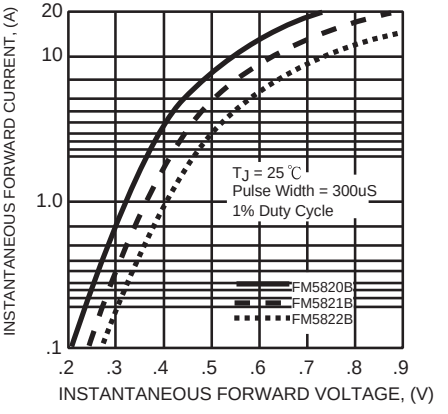
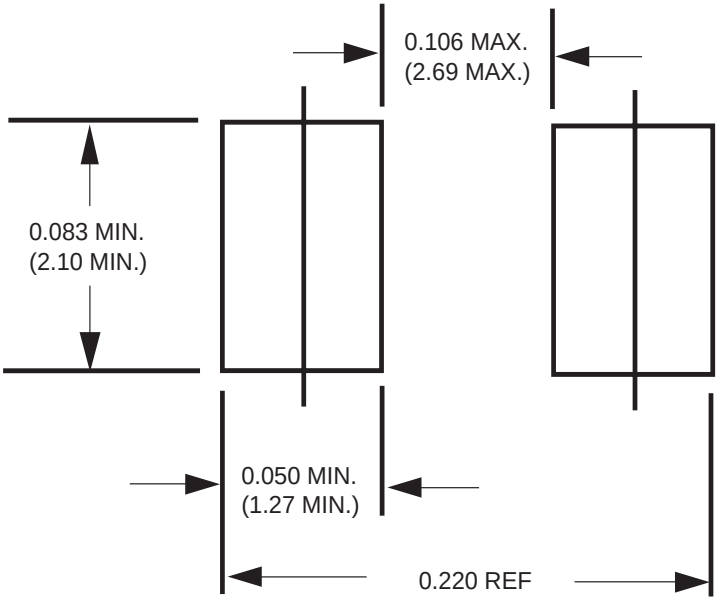


FIG. 5 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS



Mounting Pad Layout



Dimensions in inches and (millimeters)