RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

FM120 THRU FM1200

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 1.0 Ampere

FEATURES

* Low switching noise
* Low forward voltage drop
* High current capability
* High switching capability
* High surge capabitity
* High reliability

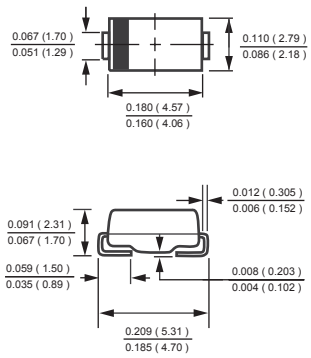
MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Metallurgically bonded construction
* Mounting position: Any
* Weight: 0.09 gram

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%.

DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	FM120	FM130	FM140	FM150	FM160	FM180	FM1100	FM1150	FM1200	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	1.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40									Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	85									°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	25									°C/W
Typical Junction Capacitance (Note 2)	C_J	110									pF
Operating Temperature Range	T_J	150									°C
Storage Temperature Range	T_{STG}	-55 to + 150									°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	FM120	FM130	FM140	FM150	FM160	FM180	FM1100	FM1150	FM1200	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F		.55			.70			.85		Volts
Maximum Average Reverse Current	@T_A = 25°C	I_R	0.2									mA
at Rated DC Blocking Voltage	@T_A = 100°C		2									mA

NOTES : 1. Thermal Resistance : Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. Also available in DO-214AA (SMB).
4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2006-11

RATING AND CHARACTERISTICS CURVES (FM120 THRU FM1200)

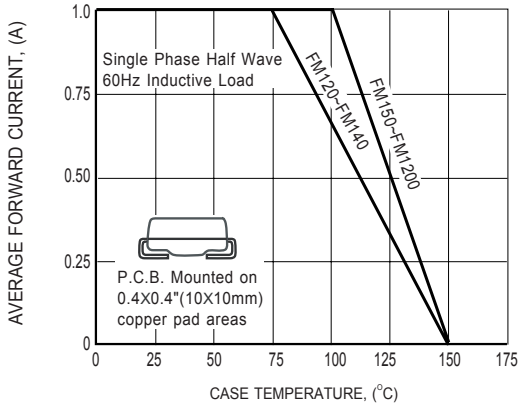


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

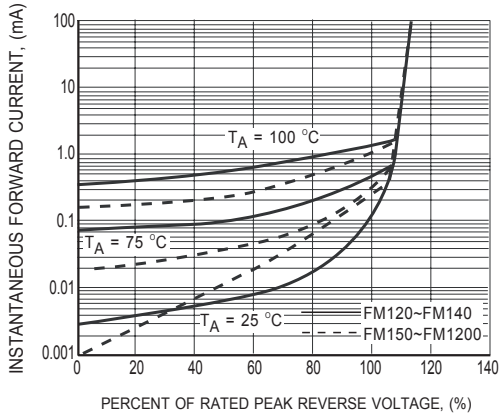


FIG.2 TYPICAL REVERSE CHARACTERISTICS

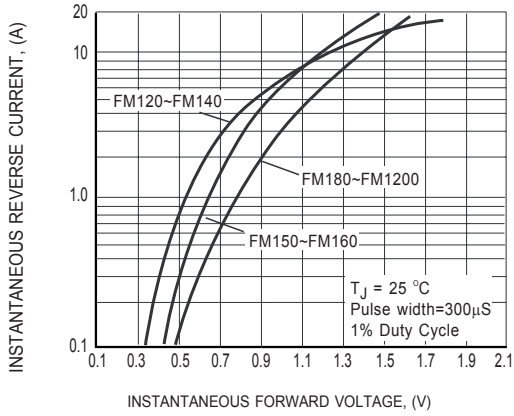


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

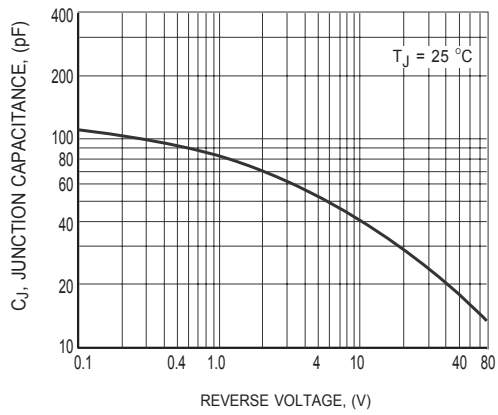


FIG.4 TYPICAL JUNCTION CAPACITANCE

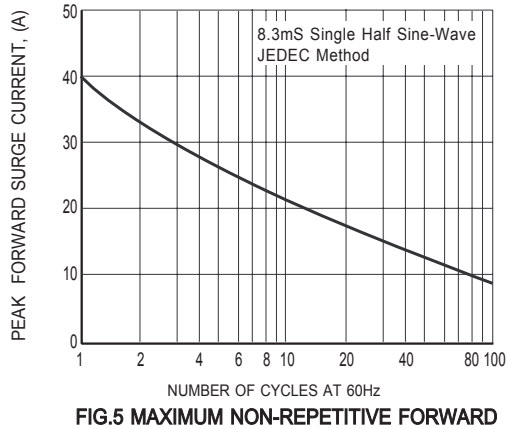
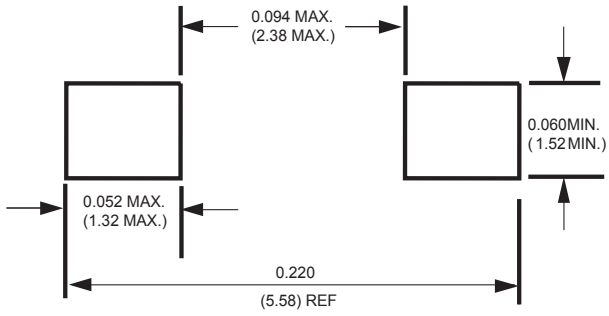


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

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