

**LOW Vf SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere**

**FEATURES**

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

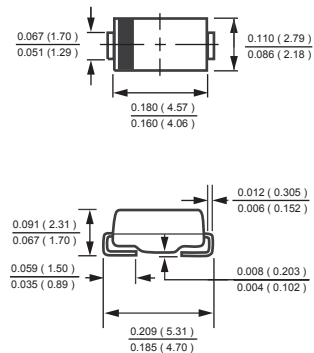
**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* 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	FMM120	FMM130	FMM140	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 $T_A=75^{\circ}C$	$I_O$	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			$^{\circ}C/W$
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	25			$^{\circ}C/W$
Typical Junction Capacitance (Note 2)	$C_J$	110			pF
Operating Temperature Range	$T_J$	150			$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to + 150			$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	FMM120	FMM130	FMM140	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	$V_F$	.44			Volts
Maximum Average Reverse Current @ $T_A = 25^{\circ}C$	$I_R$	1.0			mA
at Rated DC Blocking Voltage @ $T_A = 100^{\circ}C$		10			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)".

# RATING AND CHARACTERISTICS CURVES ( FMM120 THRU FMM140 )

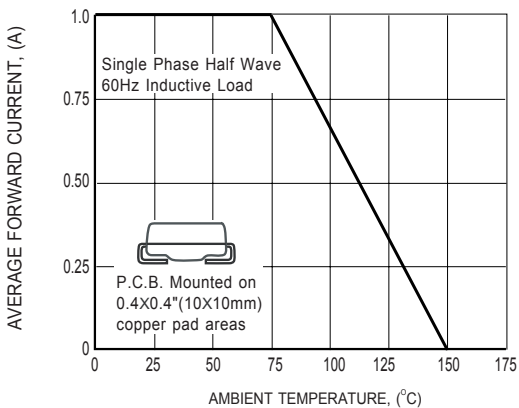


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

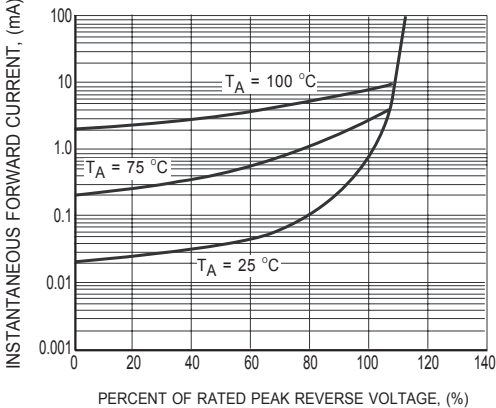


FIG.2 TYPICAL REVERSE CHARACTERISTICS

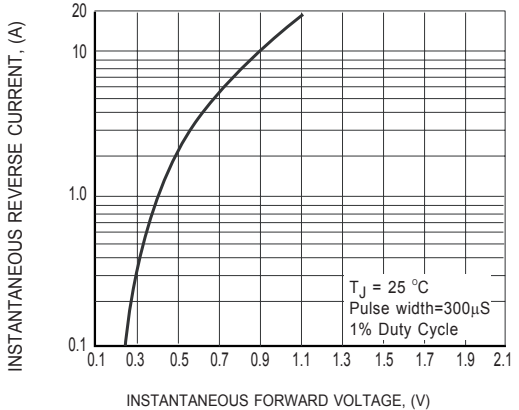


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

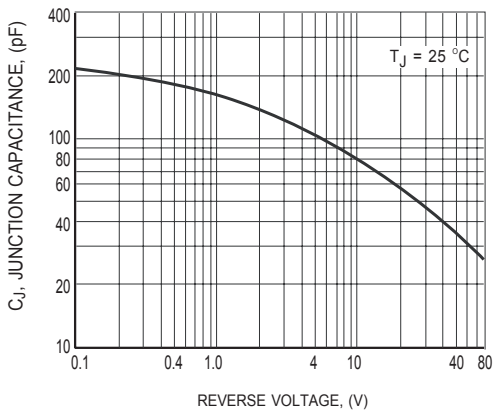


FIG.4 TYPICAL JUNCTION CAPACITANCE

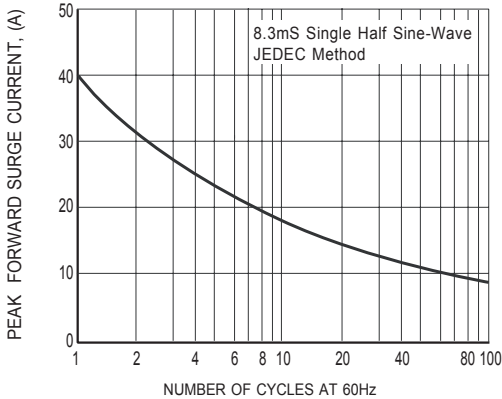
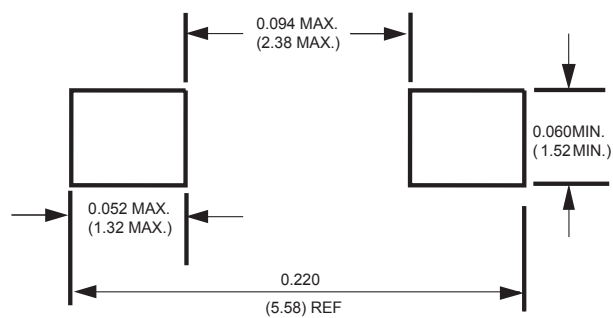


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

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