

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 5.0 Ampere**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.24 gram

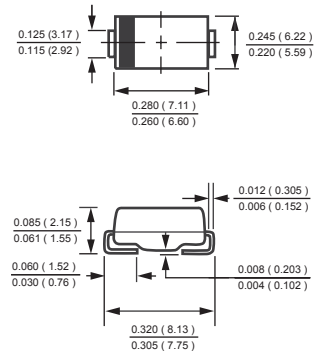
**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0

NEW RELEASE



SMCL



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

RATINGS	SYMBOL	FM520L	FM530L	FM540L	FM550L	FM560L	FM580L	FM5100L	FM5150L	FM5200L	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 Ambient Temperature	$I_O$						5.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$						150					Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$						55					°C/W
	$R_{\theta JL}$						17					
Typical Junction Capacitance (Note 2)	$C_J$						200					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	FM520L	FM530L	FM540L	FM550L	FM560L	FM580L	FM5100L	FM5150L	FM5200L	UNITS	
Maximum Instantaneous Forward Voltage at 5.0A DC	$V_F$	.55			.75			.85				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$						0.2					mA
	@ $T_A = 100^\circ\text{C}$						2					mA

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

# RATING AND CHARACTERISTICS CURVES ( FM520L THRU FM5200L )

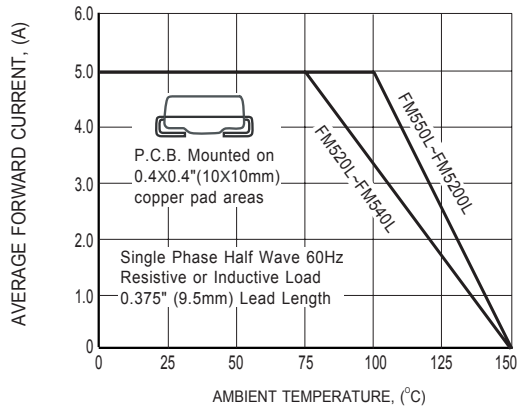


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

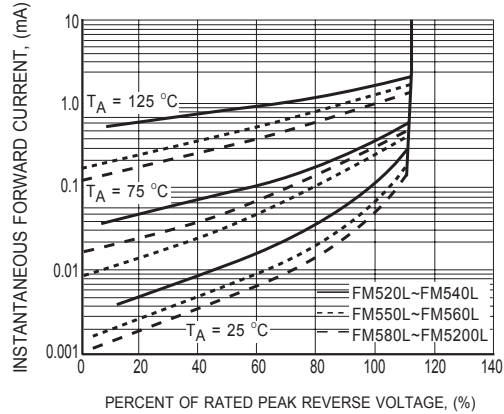


FIG.2 TYPICAL REVERSE CHARACTERISTICS

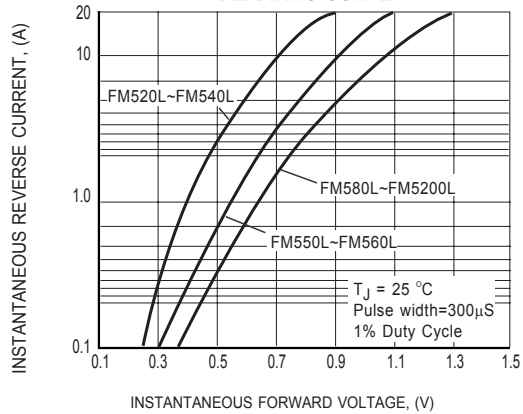


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

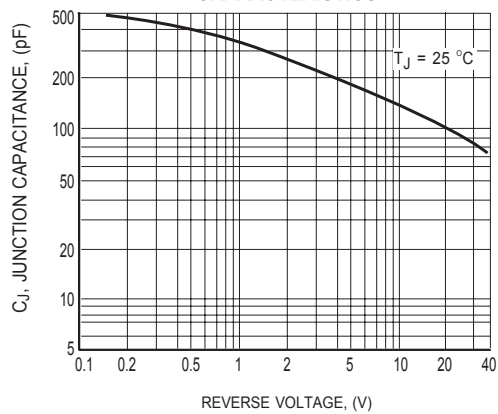


FIG.4 TYPICAL JUNCTION CAPACITANCE

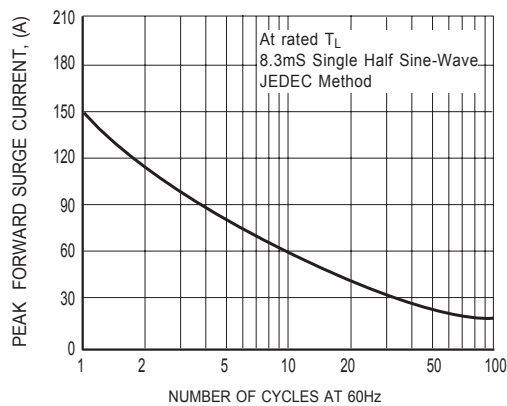
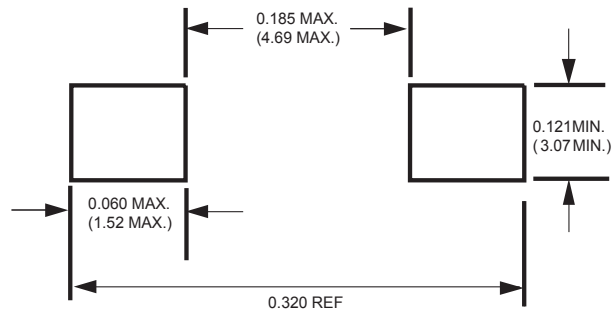


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

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