

**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**

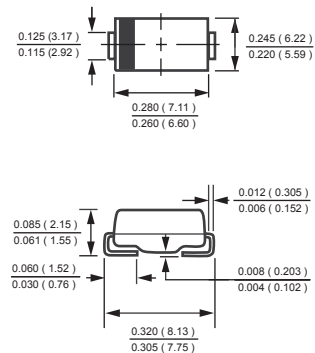
- \* Epoxy: Device has UL flammability classification 94V-O

**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%.



**SMCL**



Dimensions in inches and (millimeters)

**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 <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Ambient Temperature	I <sub>O</sub>	5.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150									Amps
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	55									°C/W
	R <sub>θJL</sub>	17									
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	200									pF
Operating Temperature Range	T <sub>J</sub>	150									°C
Storage Temperature Range	T <sub>STG</sub>	-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 <sub>F</sub>	.55			.75			.85			Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	I <sub>R</sub>	0.2										mA
	@T <sub>A</sub> = 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. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES ( FM520L THRU FM5200L )

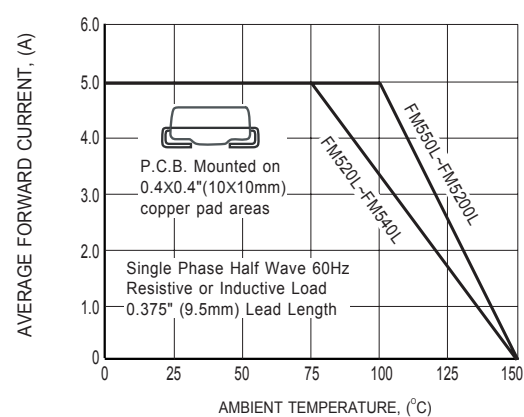


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

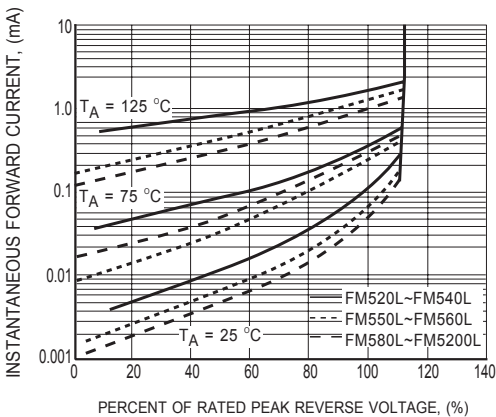


FIG.2 TYPICAL REVERSE CHARACTERISTICS

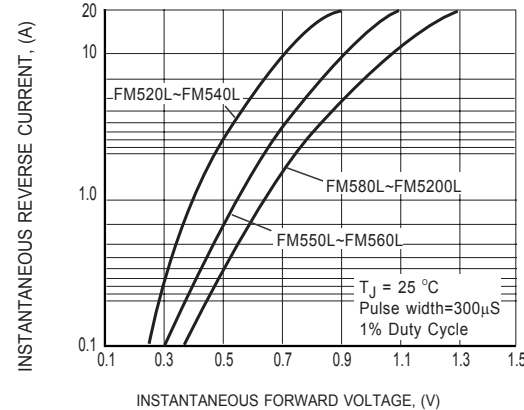


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

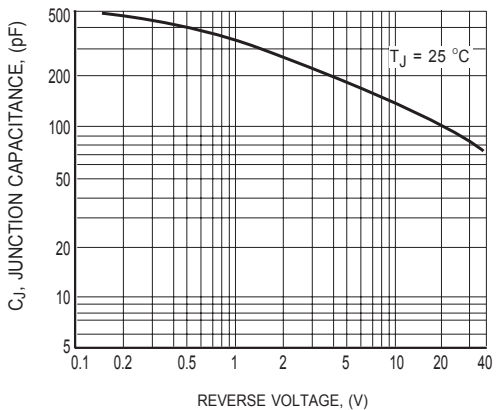


FIG.4 TYPICAL JUNCTION CAPACITANCE

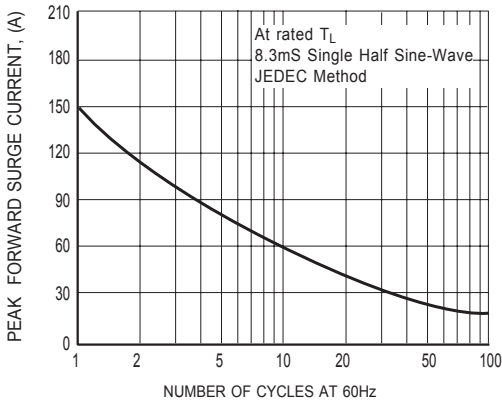
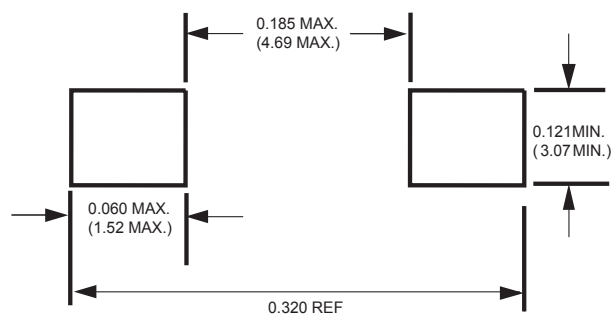


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

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