

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.057 gram

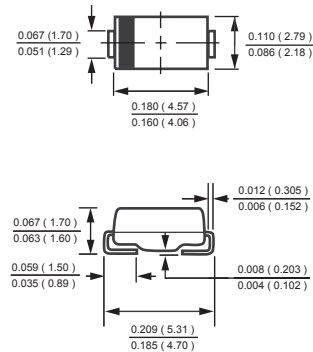
MECHANICAL DATA

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

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%.

SMAL



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	FM5817L	FM5818L	FM5819L	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 = 90°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}	25			Amps
Typical Thermal Resistance (Note 3)	R _{θJA}	88			°C/W
	R _{θJL}	28			
Typical Junction Capacitance (Note 1)	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	FM5817L	FM5818L	FM5819L	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F	.45	.55	.60	Volts
Maximum Instantaneous Forward Voltage at 3.1A DC	V_F	.75	.875	.90	Volts
Maximum Average Reverse Current	I_R	0.2			mAmps
at Rated DC Blocking Voltage		10			mAmps

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

RATING AND CHARACTERISTICS CURVES (FM5817L THRU FM5819L)

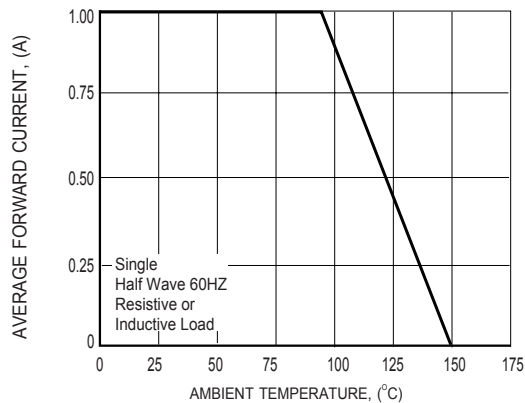


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

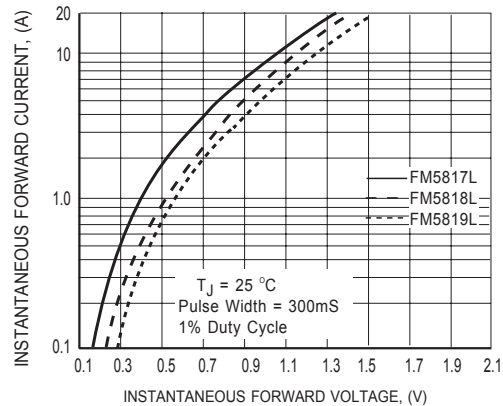


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

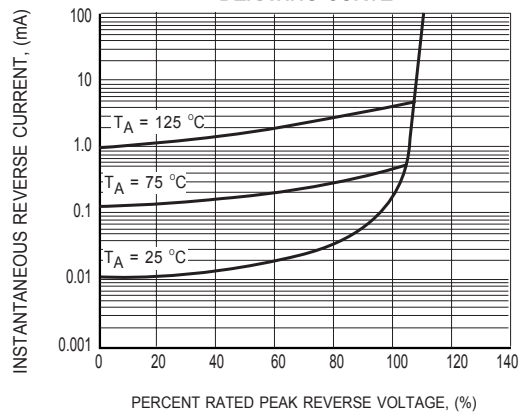


FIG.3 TYPICAL REVERSE CHARACTERISTICS

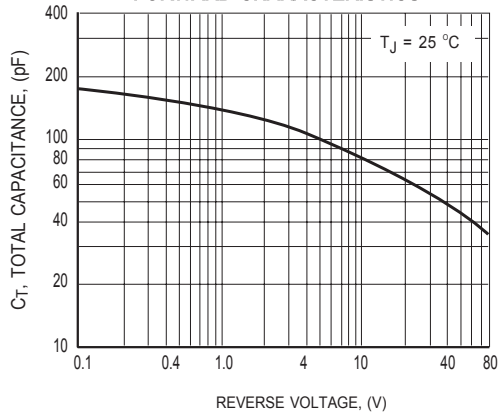


FIG.4 TYPICAL JUNCTION CAPACITANCE

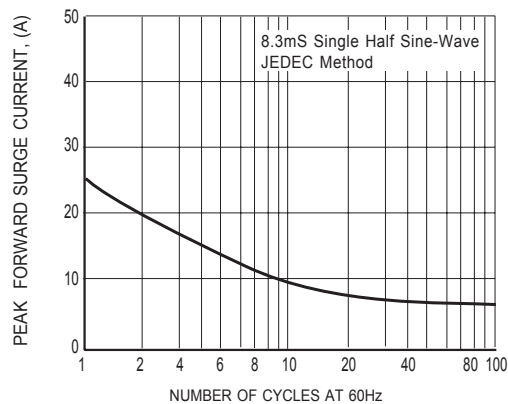
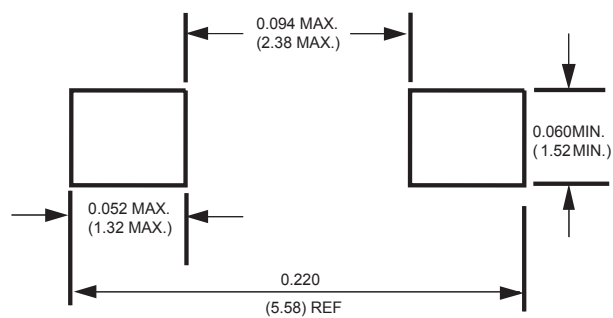


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

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