

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 0.5 Ampere

FEATURES

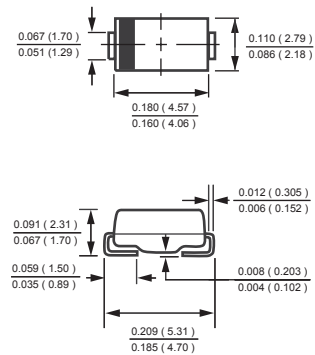
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

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

NEW RELEASE

DO-214AC



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	FML0520	FML0530	FML0540	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 = 100°C	I _O		0.5		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}		60		Amps
Typical Thermal Resistance (Note 1)	R _{θJA}		85		°C/W
Typical Thermal Resistance (Note 1)	R _{θJL}		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	FML0520	FML0530	FML0540	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V _F		0.3		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ T _A = 25°C		1.0		mA
	@ T _A = 100°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 (FML0520 THRU FML0540)

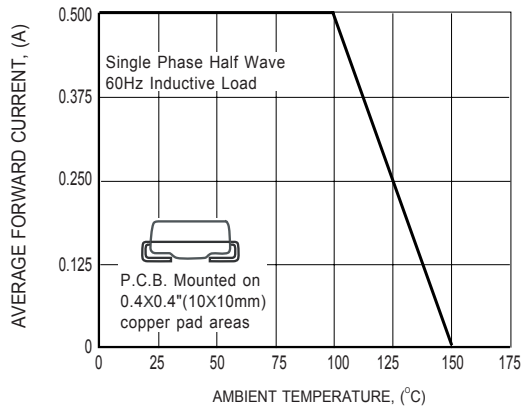


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

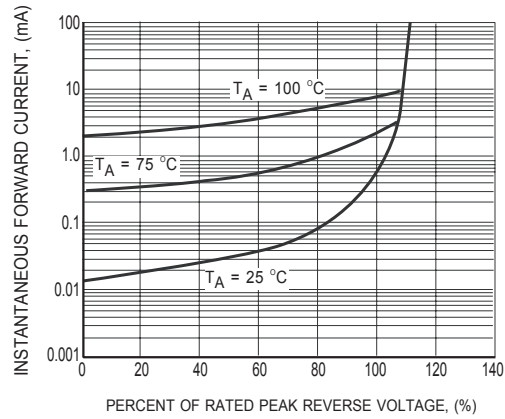


FIG.2 TYPICAL REVERSE CHARACTERISTICS

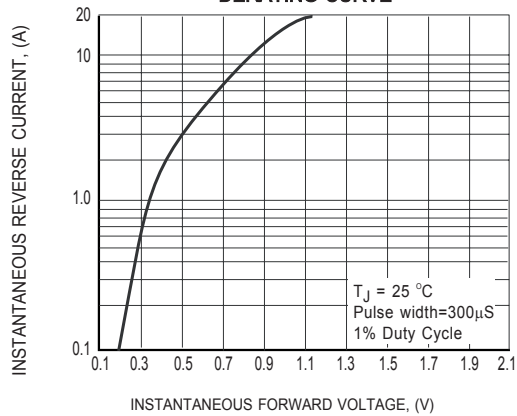


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

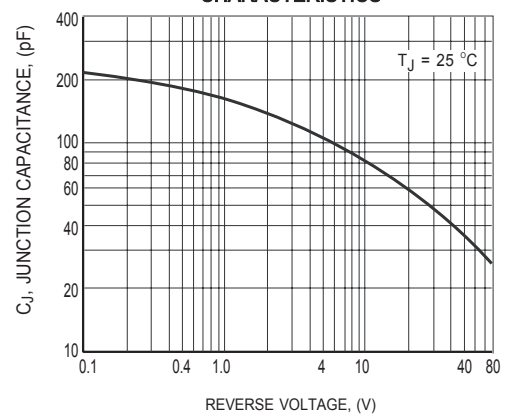


FIG.4 TYPICAL JUNCTION CAPACITANCE

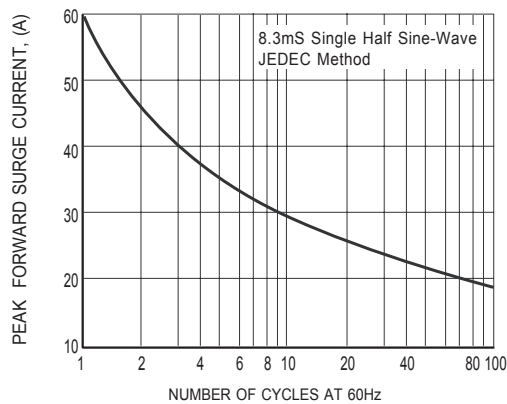
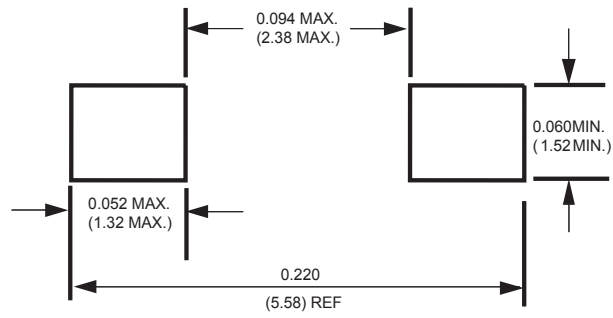


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Mounting Pad Layout



Dimensions in inches and (millimeters)

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