

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 40 Volts CURRENT 4.0 Amperes

FEATURES

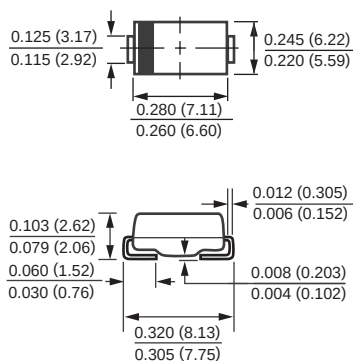
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.24 gram

MECHANICAL DATA

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



DO-214AB



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 (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	FM420	FM430	FM440	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 Derating Lead Temperature	I_O	4.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	90			Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	25			$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_J	200			pF
Operating Temperature Range	T_J	-55 to + 125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	FM420	FM430	FM440	UNITS
Maximum Instantaneous Forward Voltage at 4.0A DC	V_F	.55			Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	2.0			mAmps
		20			mAmps

NOTES : 1. Thermal Resistance (Junction to Ambient).
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. P.C.B Mounted with 0.4X0.4" (10.0X10.0mm²) copper pad area.

RATING AND CHARACTERISTIC CURVES (FM420 THRU FM440)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

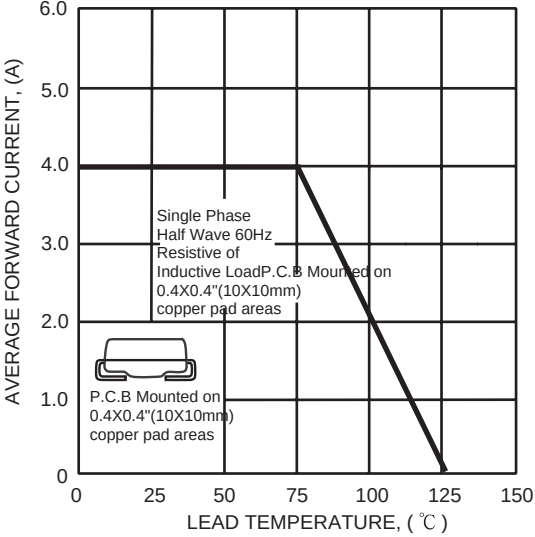


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

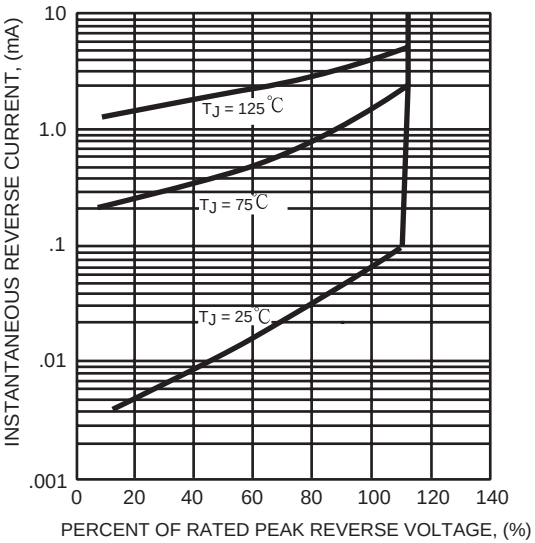


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

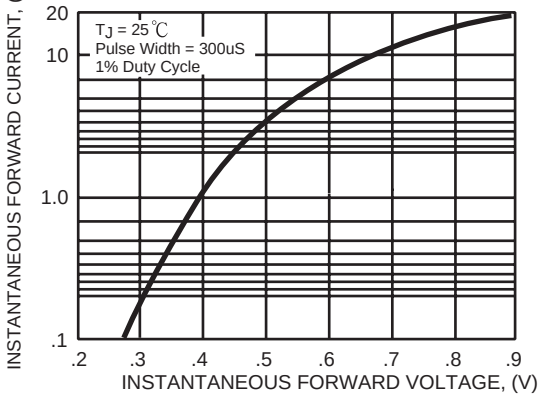


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

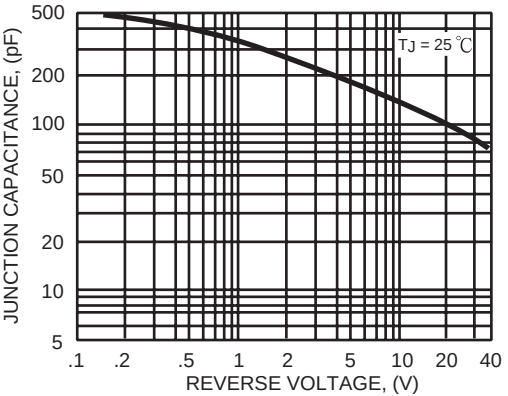
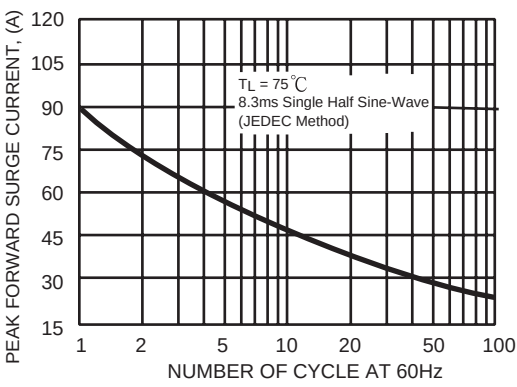
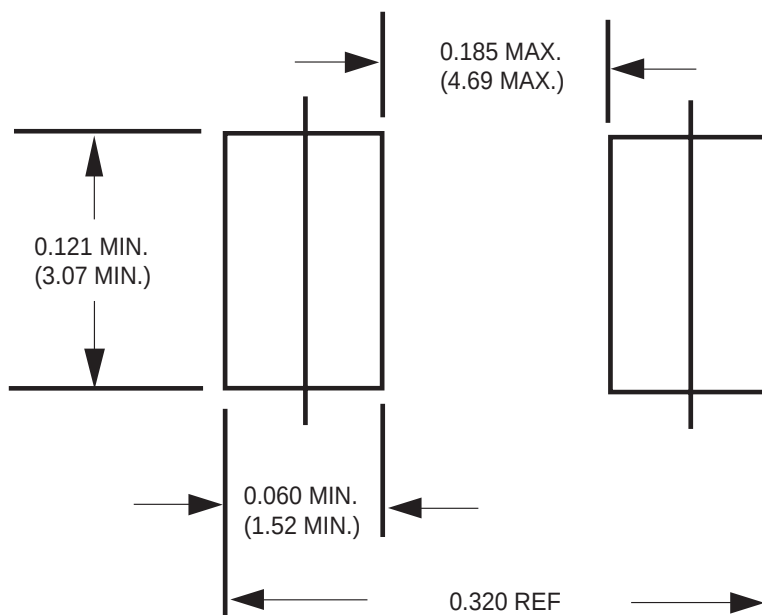


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Mounting Pad Layout



Dimensions in inches and (millimeters)