

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 40 Volts CURRENT 4.0 Amperes**

**FEATURES**

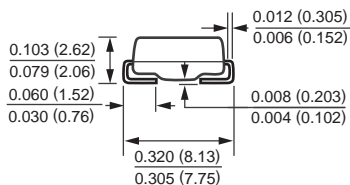
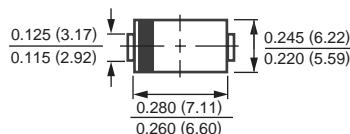
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.24 gram

**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 TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	FM420	FM430	FM440	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	IO		4.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM		90		Amps
Typical Thermal Resistance (Note 1)	RθJA		25		°C/W
Typical Junction Capacitance (Note 2)	CJ		200		pF
Operating Temperature Range	TJ		-55 to + 125		°C
Storage Temperature Range	TSTG		-55 to + 150		°C

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	FM420	FM430	FM440	UNITS
Maximum Instantaneous Forward Voltage at 4.0A DC	VF		.55		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C		2.0		mAmps
	@ TA = 100°C		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 Monuted with 0.4X0.4" (10.0X10.0mm<sup>2</sup>) copper pad area.

# RATING AND CHARACTERISTIC CURVES ( FM420 THRU FM440 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

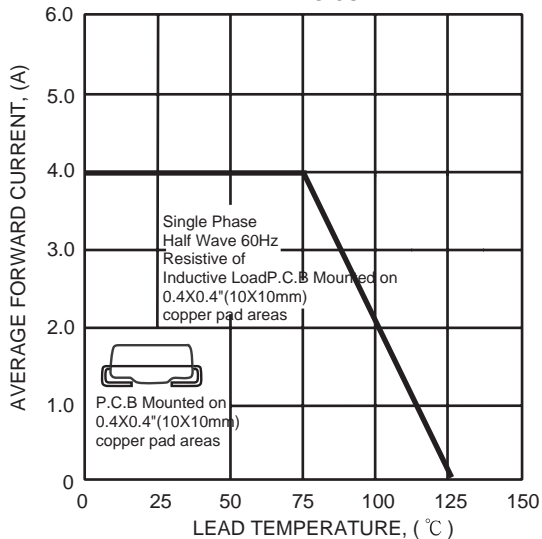


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

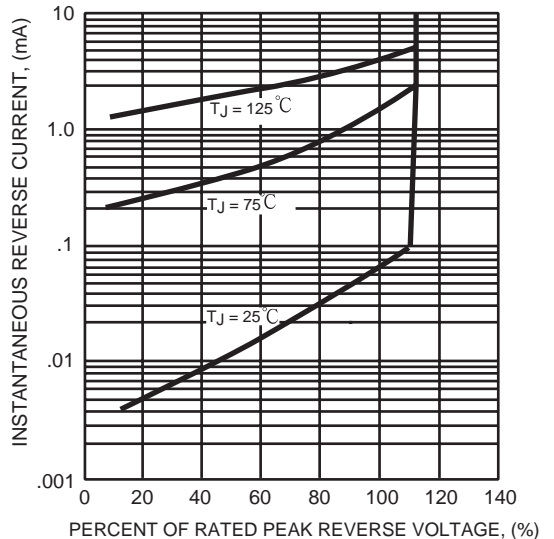


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

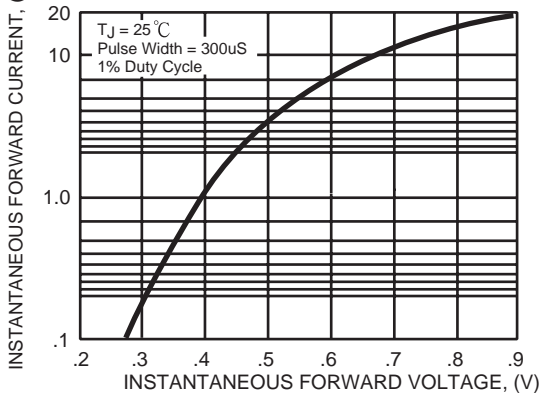


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

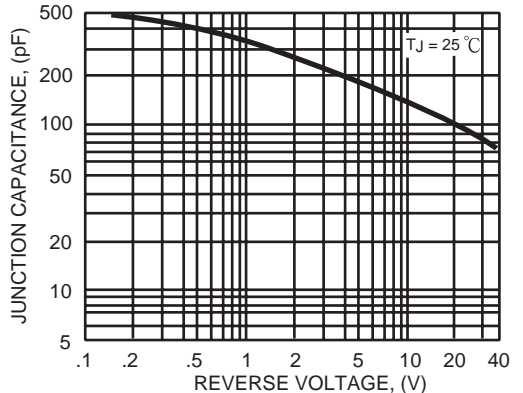
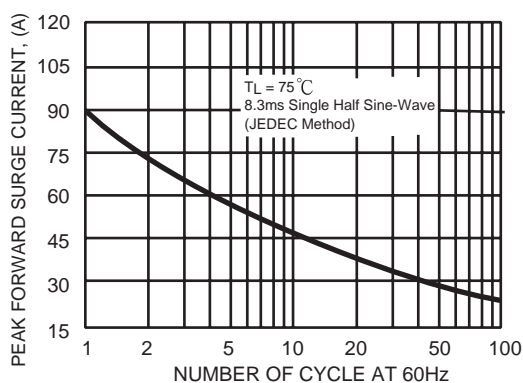
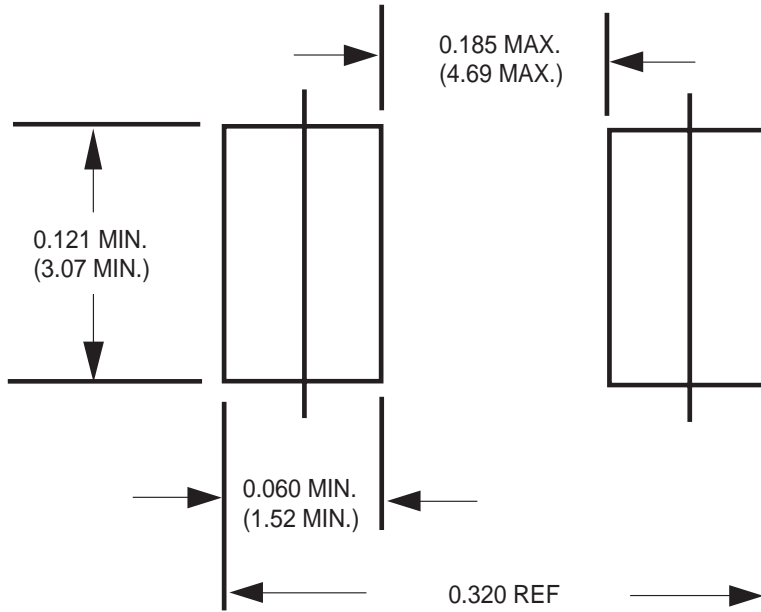


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



## Mounting Pad Layout



Dimensions in inches and (millimeters)