

**SURFACE MOUNT SCHOTTKY  
BARRIER RECTIFIER**  
VOLTAGE RANGE 20 to 200 Volts CURRENT 5.0 Ampere

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* P/N suffix V means AEC-Q101 qualified, e.g:FM520BV
- \* P/N suffix V means Halogen-free

**MECHANICAL DATA**

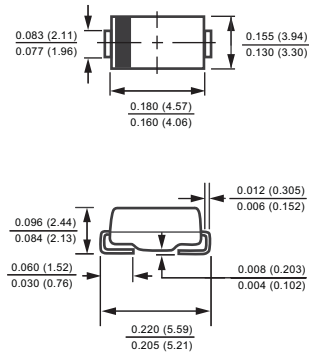
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Mounting position: Any
- \* Weight: 0.24 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Resistive or inductive load.



DO-214AA



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	FM520B	FM530B	FM540B	FM550B	FM560B	FM580B	FM5100B	FM5150B	FM5200B	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Ambient Temperature	$I_O$	5.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200									Amps
Typical Current Square Time	$I^2T$	166									A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55									°C/W
	$R_{\theta JL}$	17									
Typical Junction Capacitance (Note 2)	$C_J$	200									pF
Operating Temperature Range	$T_J$	-55 to + 150									°C
Storage Temperature Range	$T_{STG}$	-55 to + 150									°C

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

CHARACTERISTICS	SYMBOL	FM520B	FM530B	FM540B	FM550B	FM560B	FM580B	FM5100B	FM5150B	FM5200B	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	$V_F$	.52			.65			.85			Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	$I_R$	@ $T_A = 25^\circ C$	60						20		$\mu A$
		@ $T_A = 150^\circ C$	4.0						2.0		mA

- NOTES : 1. Thermal Resistance : Mounted on PCB.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. "ROHS compliant".

# RATING AND CHARACTERISTICS CURVES ( FM520B THRU FM5200B )

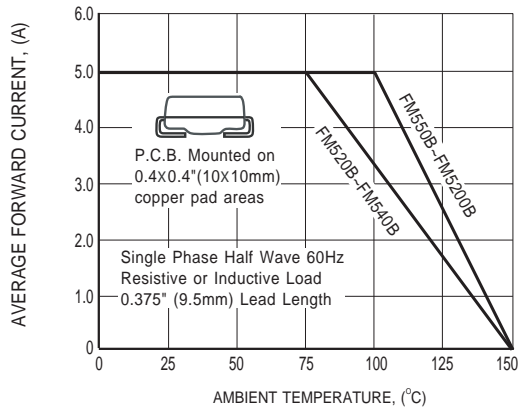


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

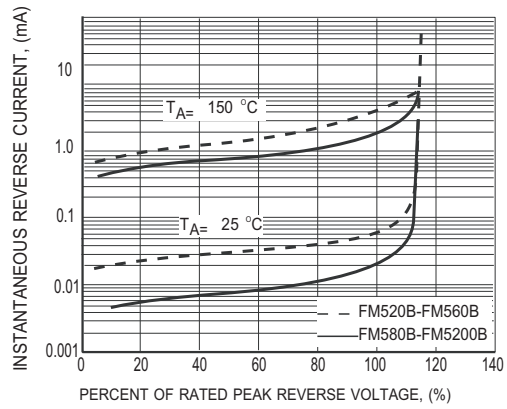


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

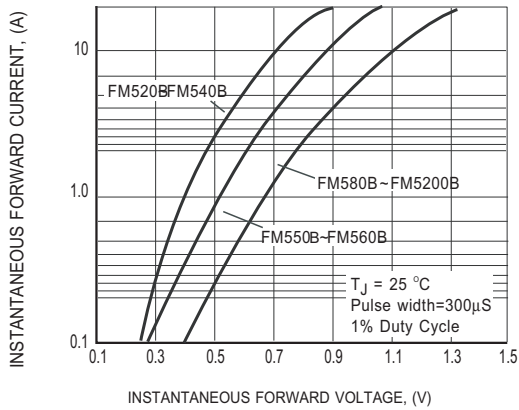


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

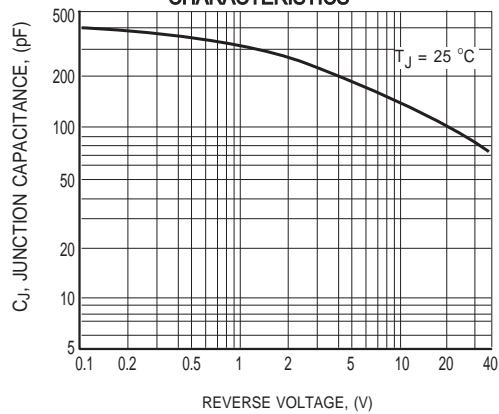


FIG.4 TYPICAL JUNCTION CAPACITANCE

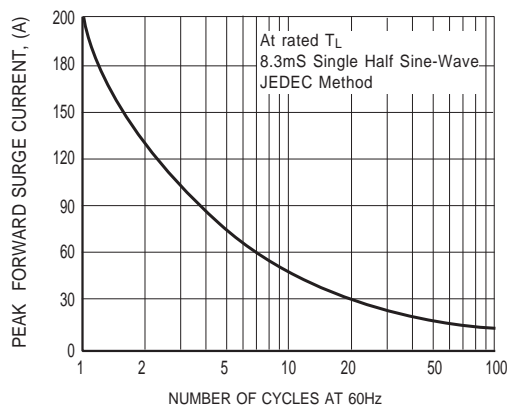
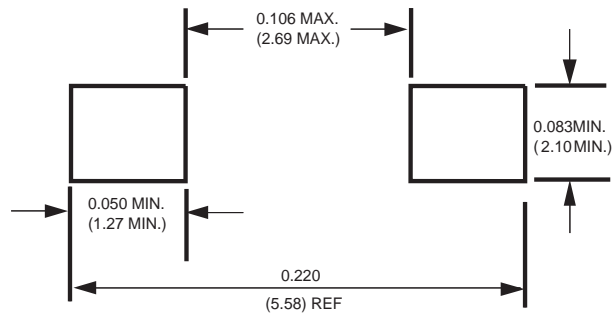


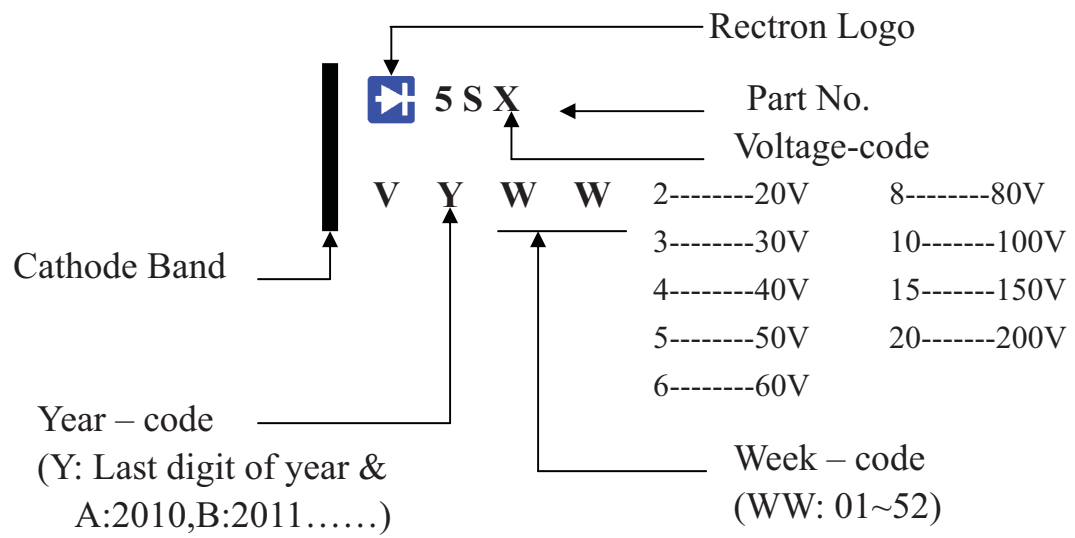
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMB	-W/-T	3,000	6,000	---	---	330	360*355*360	48,000	13.90