

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 3.0 Amperes**

**FEATURES**

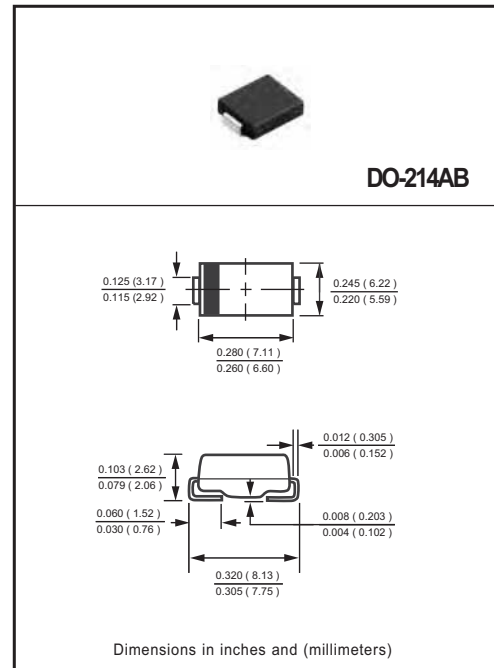
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* P/N suffix V means AEC-Q101 qualified
- \* P/N suffix V means Halogen-free

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0
- \* Mounting position: Any
- \* Weight: 0.24 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, resistive or inductive load.



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

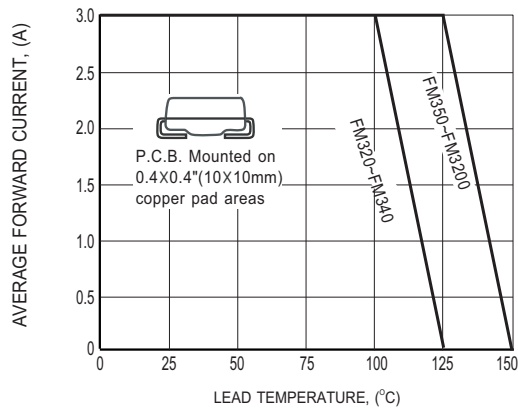
RATINGS	SYMBOL	FM320	FM330	FM340	FM350	FM360	FM380	FM3100	FM3150	FM3200	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts
Max Avg Forward Rectify Current at Ambient Temp needs To be corrected to Lead Temperature, TL	$I_O$						3.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$						100				Amps
Typical Current Square Time	$I^2T$						41.5				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)**

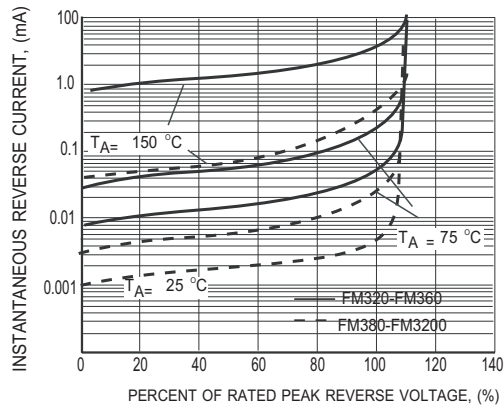
CHARACTERISTICS	SYMBOL	FM320	FM330	FM340	FM350	FM360	FM380	FM3100	FM3150	FM3200	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC	$V_F$	.55			.75		.79				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$	60					5.0				u A
	@ $T_A = 150^\circ\text{C}$	4.0					0.4				mA

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

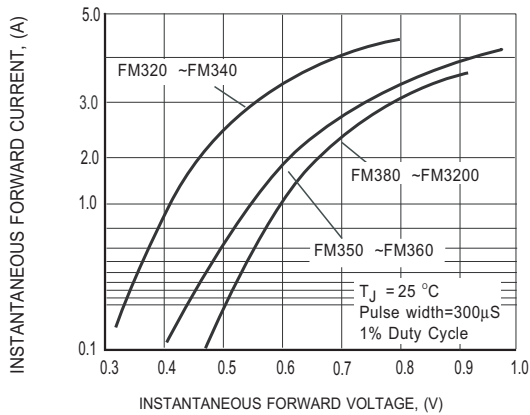
## RATING AND CHARACTERISTICS CURVES ( FM320 THRU FM3200 )



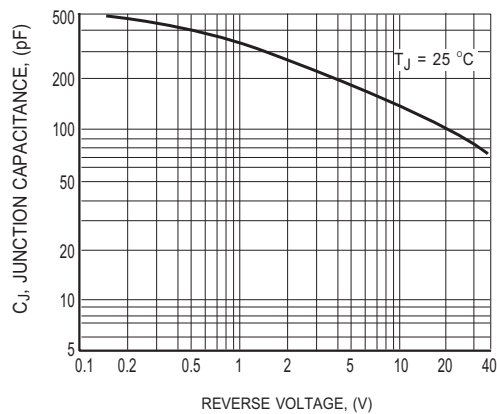
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



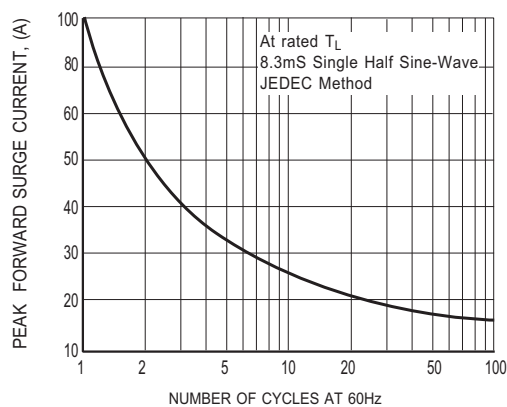
**FIG.2 MAXIMUM REVERSE CHARACTERISTICS**



**FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS**

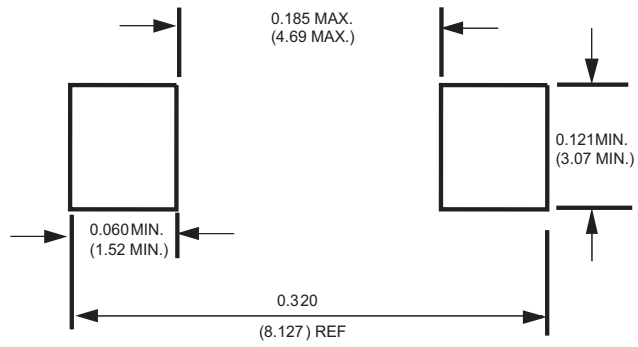


**FIG.4 TYPICAL JUNCTION CAPACITANCE**



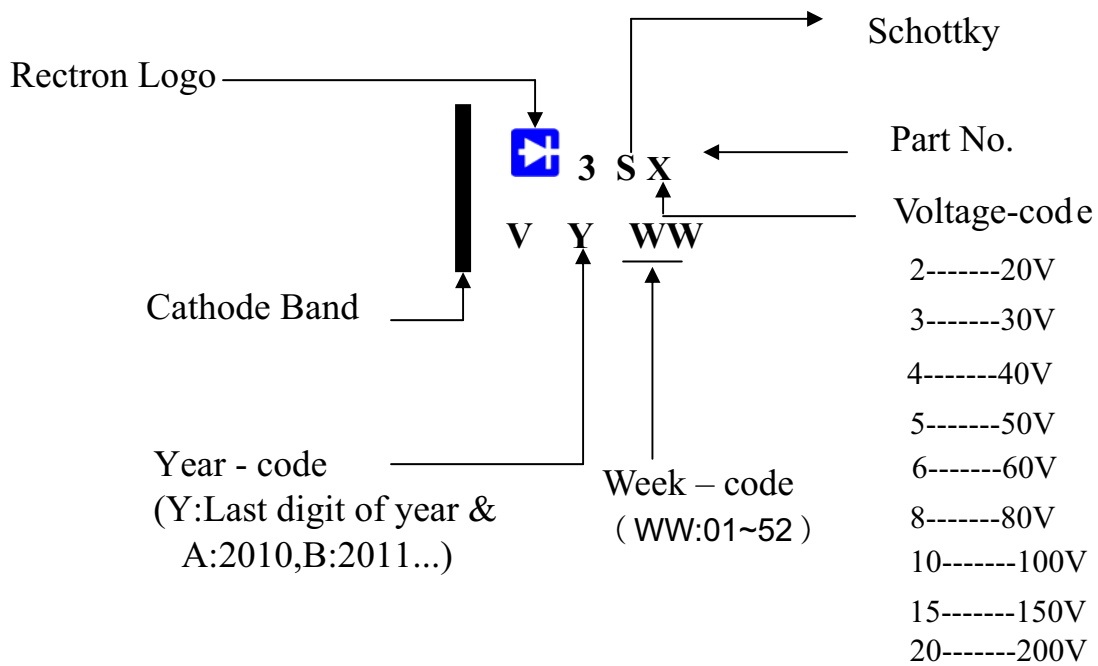
**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

## 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)
SMC	-T	500	1,500	---	---	178	390*205*310	12,000	6.65
SMC	-W	3,000	3,000	---	---	330	360*355*360	24,000	11.50

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