

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

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

**FEATURES**

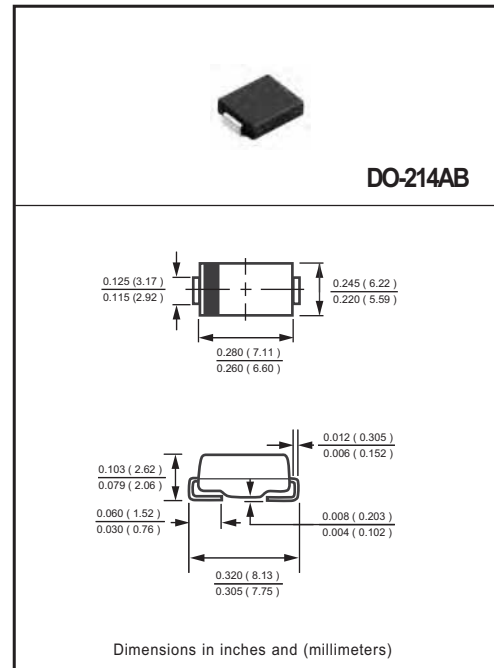
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* P/N suffix V means AEC-Q101 qualified, e.g:FM320V
- \* P/N suffix V means Halogen-free

**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.  
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 <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	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 <sub>O</sub>						3.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>						100				Amps
Typical Current Square Time	I <sup>2</sup> T						41.5				A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>						55				°C/W
	R <sub>θJC</sub>						38				
	R <sub>θJL</sub>						17				
Typical Junction Capacitance (Note 2)	C <sub>J</sub>						200				pF
Operating Temperature Range	T <sub>J</sub>						-55 to + 150				°C
Storage Temperature Range	T <sub>STG</sub>						-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 <sub>F</sub>	.55			.75		.83				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C	60				2.0				u A
		@T <sub>A</sub> = 150°C	4.0				0.2				mA
Maximum Reverse Recovery Time (Note 3)	t <sub>rr</sub>						6				nSec

- NOTES : 1. Thermal Resistance : Mounted on PCB.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. Test Conditions: IF= 0.5A, IR= -1.0A, IRR= -0.25A.

## RATING AND CHARACTERISTICS CURVES ( FM320 THRU FM3200 )

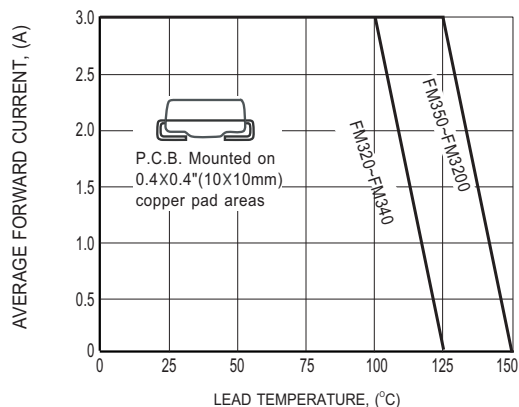


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

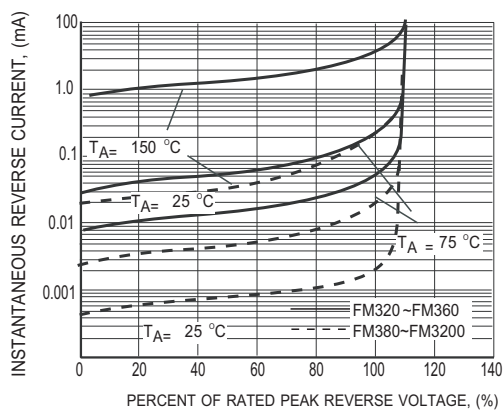


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

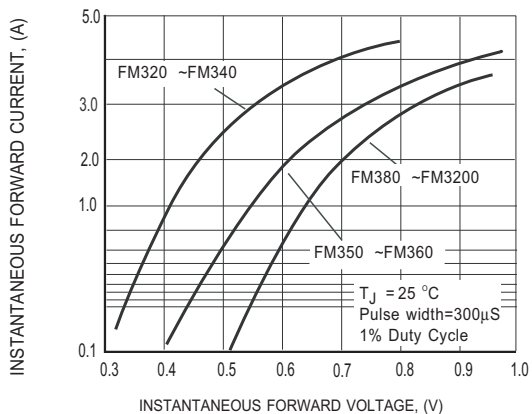


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

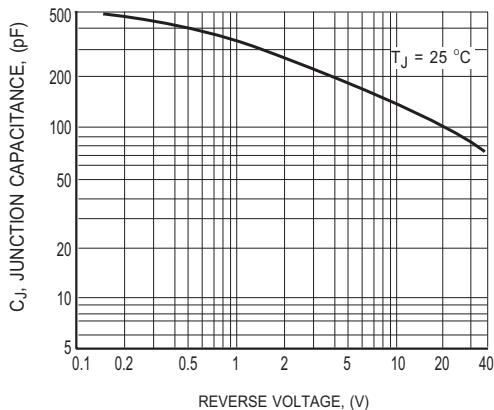


FIG.4 TYPICAL JUNCTION CAPACITANCE

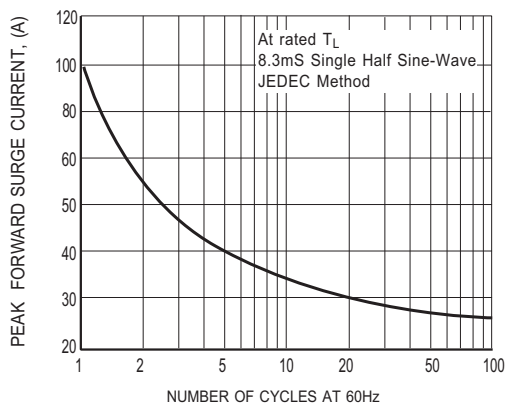
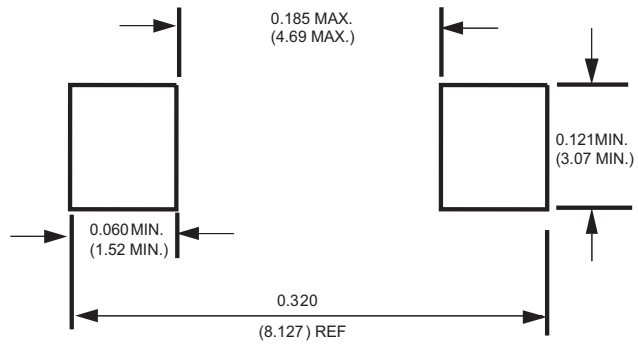


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

**RECTRON**

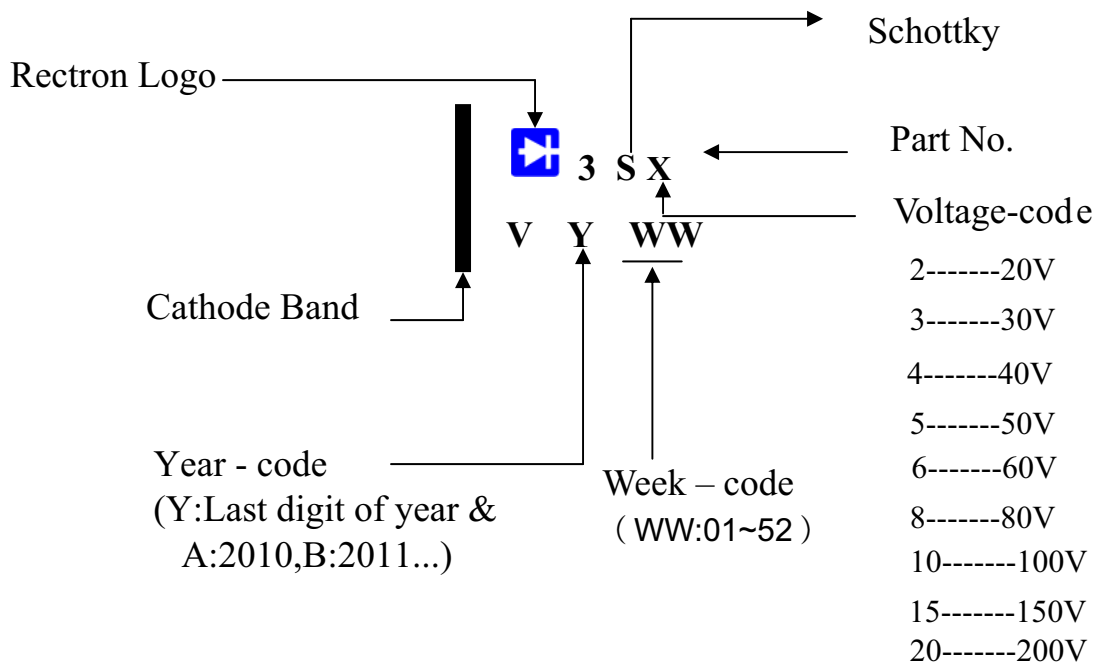
## Mounting Pad Layout



Dimensions in inches and (millimeters)



## Marking Description



---

 **RECTRON**

## 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	-W/-T	3,000	3,000	---	---	330	360*355*360	24,000	11.50

Revise History		
Rev	Content	Data
H	FM380~FM3200:Modify Vf 0.79V to 0.83V	2018-11-8

## DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.

