

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 3.0 Amperes

FEATURES

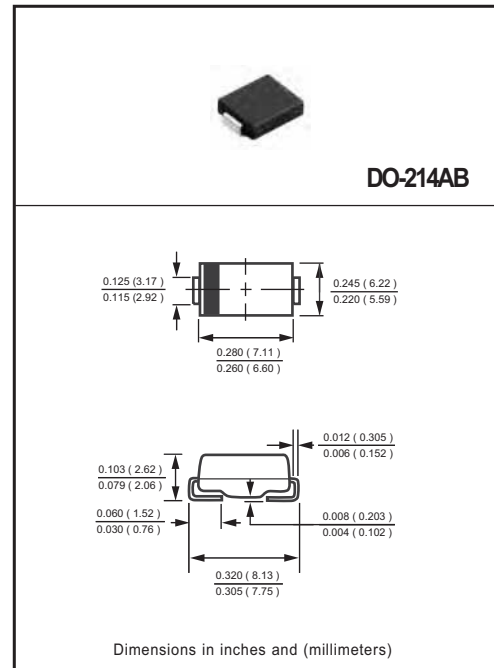
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * P/N suffix V means AEC-Q101 qualified
- * P/N suffix V means Halogen-free

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 ² 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				

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)

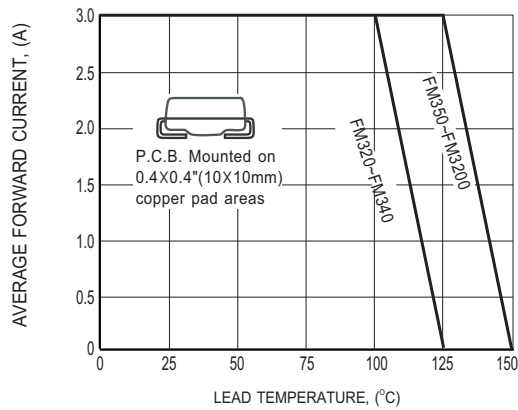


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

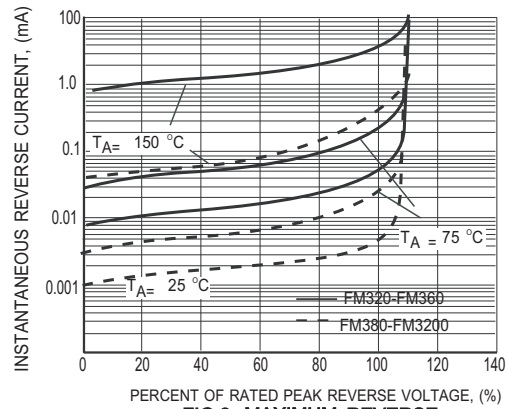


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

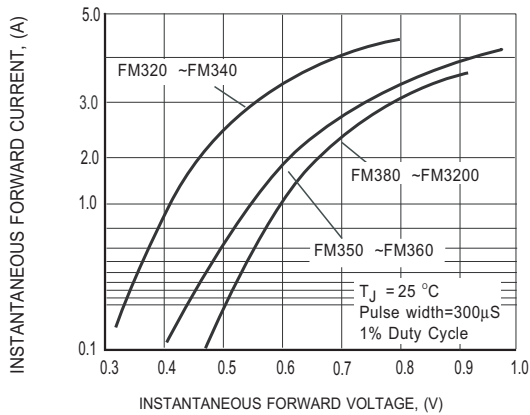


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

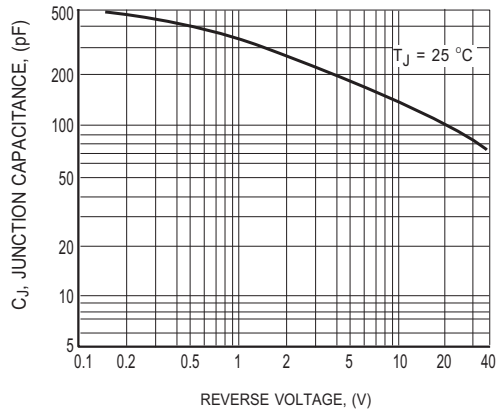


FIG.4 TYPICAL JUNCTION CAPACITANCE

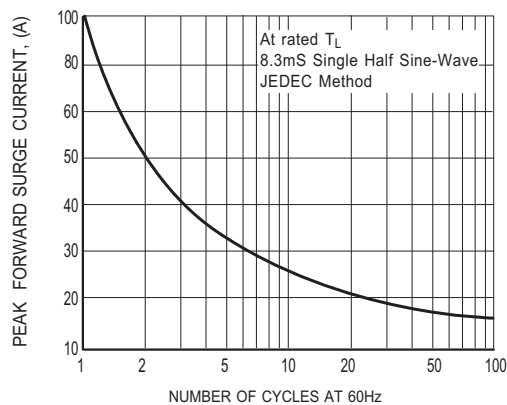
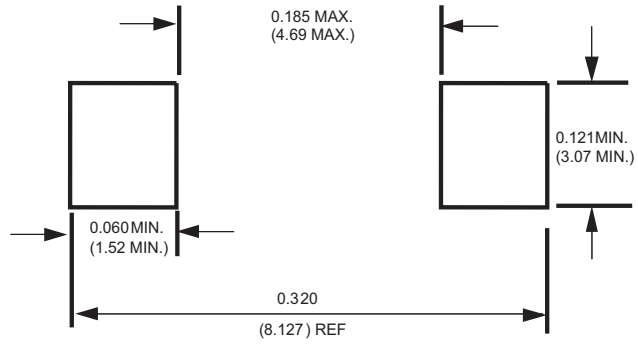


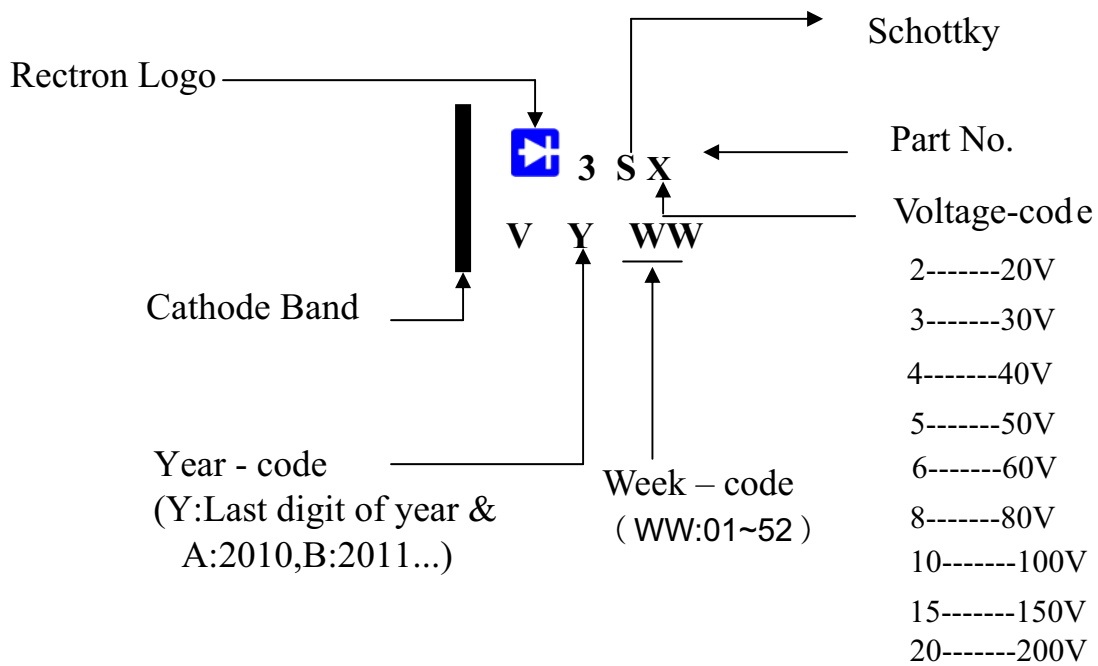
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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