RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

FM220A THRU FM2200A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

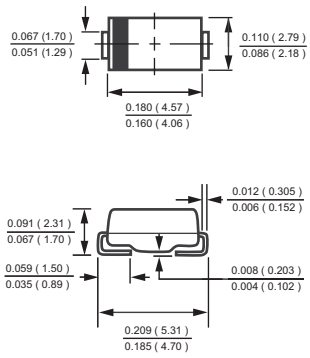
VOLTAGE RANGE 20 to 200 Volts CURRENT 2.0 Ampere

FEATURES

* Ideal for surface mounted applications
* Low leakage current
* Metallurgically bonded construction
* Mounting position: Any
* P/N suffix V means AEC-Q101 qualified, e.g:FM220AV
* P/N suffix V means Halogen-free



DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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

RATINGS	SYMBOL	FM220A	FM230A	FM240A	FM250A	FM260A	FM280A	FM2100A	FM2150A	FM2200A	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	2.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60									Amps
Typical Current Square Time	I^2T	14.9									A^2S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	75									°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	17									°C/W
Typical Junction Capacitance (Note 2)	C_J	130									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	FM220A	FM230A	FM240A	FM250A	FM260A	FM280A	FM2100A	FM2150A	FM2200A	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC		V_F	.50			.70		.85				Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	60					5.0				uA
	@T_A = 150°C		10					1.0				mA
Maximum Reverse Recovery Time (Note 3)		trr	10									nS

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.

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RATING AND CHARACTERISTICS CURVES (FM220A THRU FM2200A)

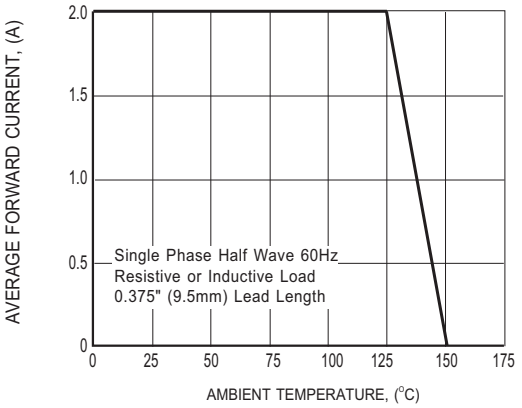


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

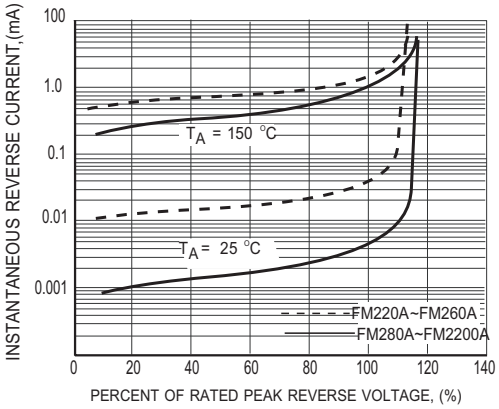


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

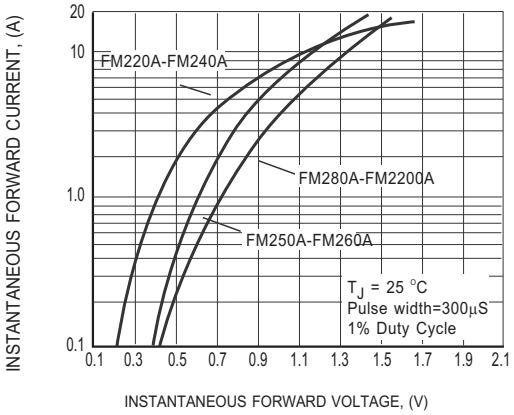


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

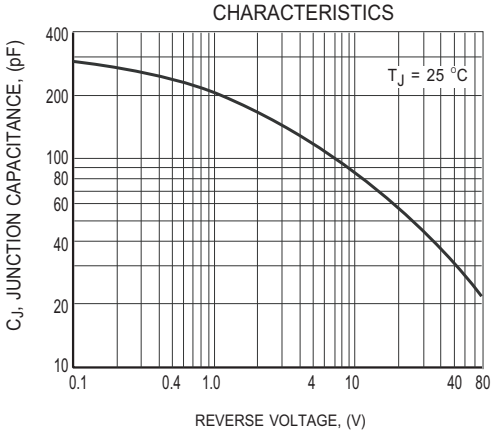


FIG.4 TYPICAL JUNCTION CAPACITANCE

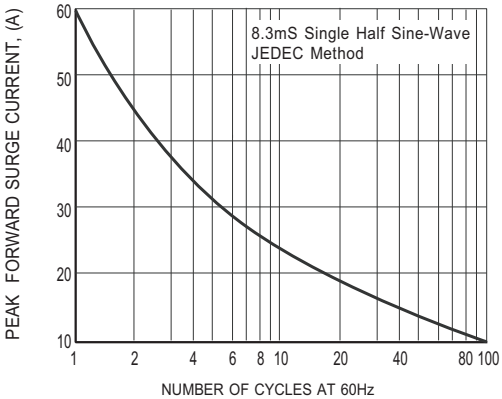
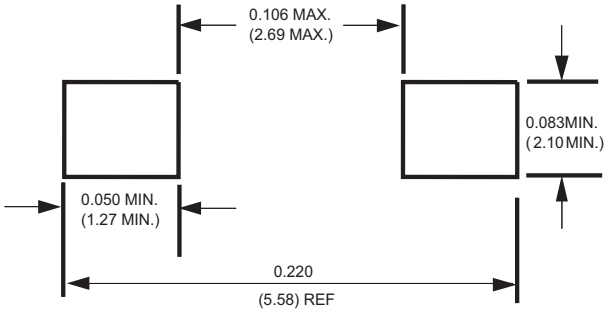


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout

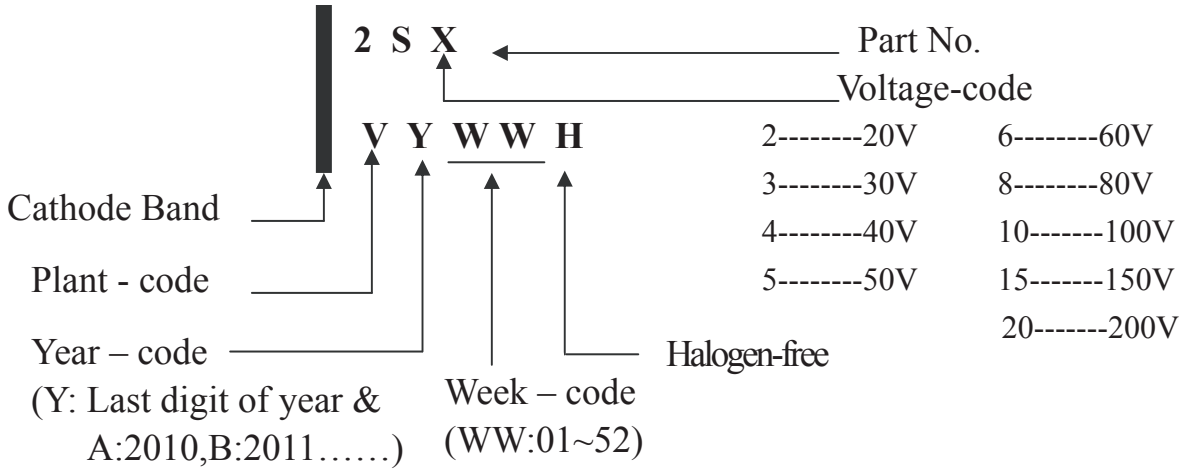


Dimensions in inches and (millimeters)

1. Internal Circuit



2. Marking on the body



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)
SMA	-W	7,500	15,000	---	---	330	360*355*360	120,000	15.2

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)
SMA	-T	2,000	8,000	---	---	178	390*205*310	64,000	7.8

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