

**SURFACE MOUNT SCHOTTKY
BARRIER RECTIFIER**
VOLTAGE RANGE 20 to 200 Volts CURRENT 2.0 Ampere

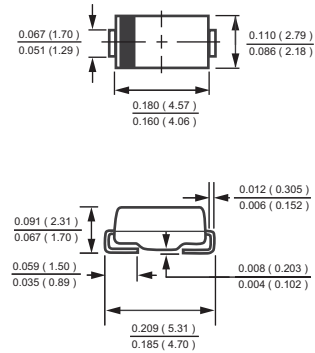
FEATURES

- * 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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

DO-214AC



Dimensions in inches and (millimeters)

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 ² T | 14.9 | | | | | | | | | A ² S |
| Typical Thermal Resistance (Note 1) | R _{θJA} | 75 | | | | | | | | | °C/W |
| Typical Thermal Resistance (Note 1) | R _{θJL} | 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 | 60 | | | | | | 5.0 | | | uA |
| | @T _A = 150°C | 10 | | | | | | 1.0 | | | mA |
| Maximum Reverse Recovery Time (Note 3) | t _{rr} | 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: I_F= 0.5A, I_R= -1.0A, I_{RR}= -0.25A.

RATING AND CHARACTERISTICS CURVES (FM220A THRU FM2200A)

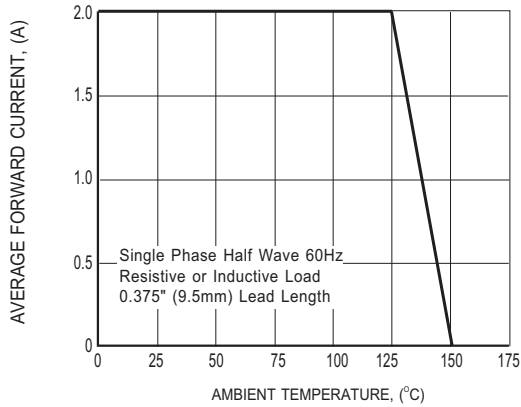


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

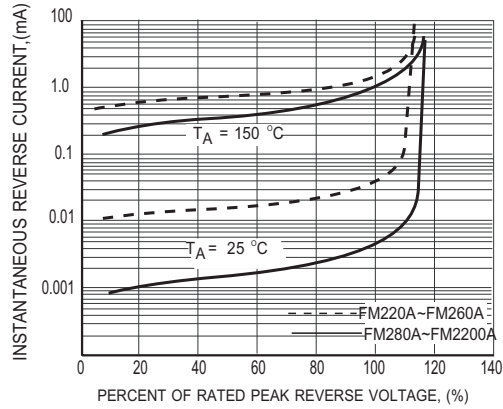


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

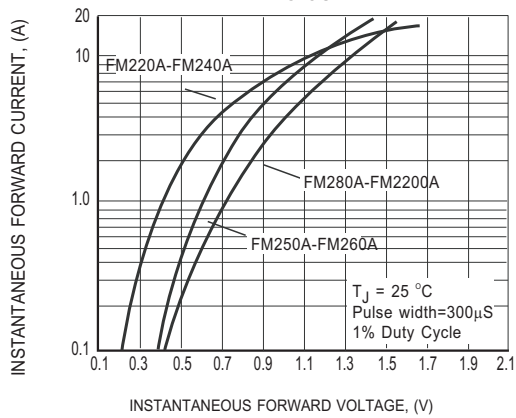


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

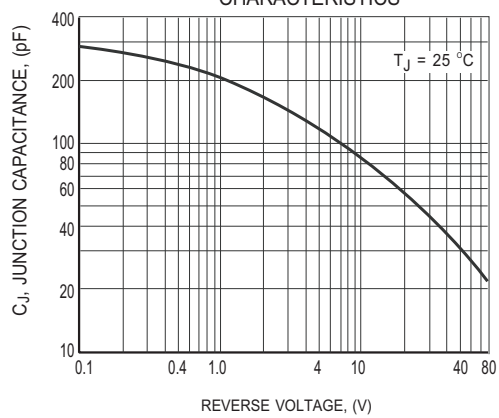


FIG.4 TYPICAL JUNCTION CAPACITANCE

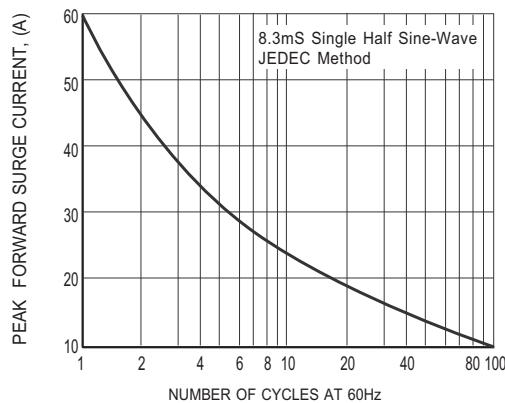
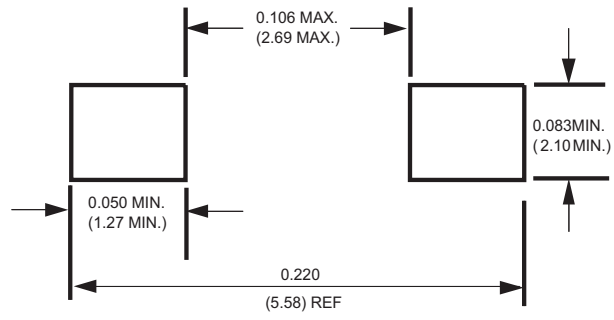


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout

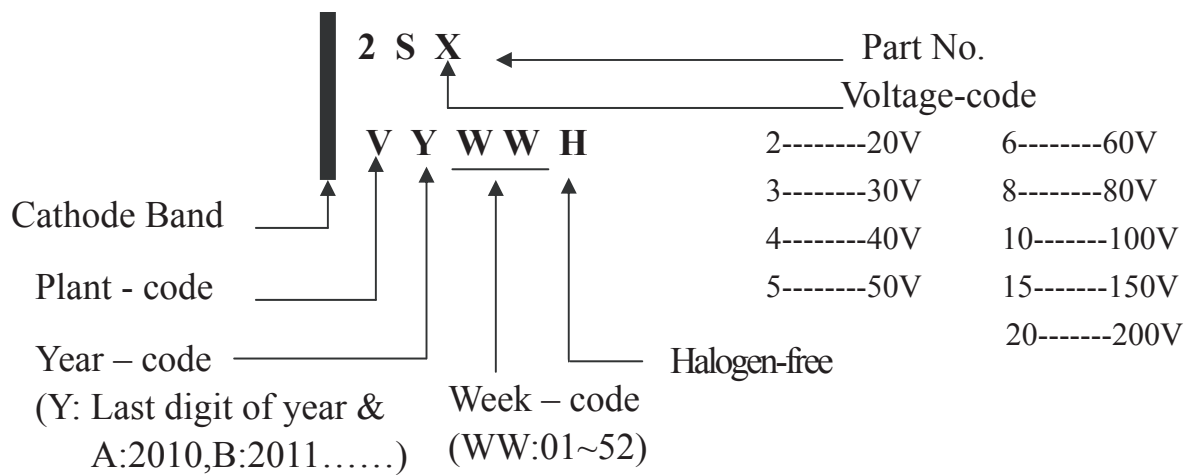


Dimensions in inches and (millimeters)

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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