

**SURFACE MOUNT SCHOTTKY  
BARRIER RECTIFIER**  
VOLTAGE RANGE 20 to 40 Volts CURRENT 1.0 Ampere

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.057 gram

**MECHANICAL DATA**

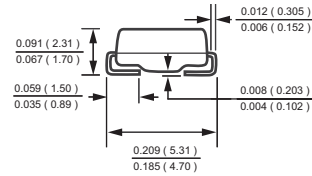
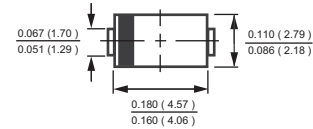
- \* Epoxy: Device has UL flammability classification 94V-0

**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           | FM5817       | FM5818 | FM5819 | UNITS            |
|---|------------------|--------------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>RRM</sub> | 20           | 30     | 40     | Volts            |
| Maximum RMS Voltage   | V <sub>RMS</sub> | 14           | 21     | 28     | Volts            |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>  | 20           | 30     | 40     | Volts            |
| Maximum Average Forward Rectified Current at T <sub>A</sub> = 90°C                                | I <sub>O</sub>   | 1.0          |        |        | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 25           |        |        | Amps             |
| Typical Current Square Time   | I <sup>2</sup> T | 2.5          |        |        | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 3)   | R <sub>θJA</sub> | 88           |        |        | °C/W             |
|   | R <sub>θJL</sub> | 28           |        |        |                  |
| Typical Junction Capacitance (Note 1)   | C <sub>J</sub>   | 110          |        |        | pF               |
| Operating Temperature Range   | T <sub>J</sub>   | 150          |        |        | °C               |
| Storage Temperature Range   | T <sub>STG</sub> | -55 to + 150 |        |        | °C               |

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

| CHARACTERISTICS  | SYMBOL                  | FM5817 | FM5818 | FM5819 | UNITS |
|--|-------------------------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC             | V <sub>F</sub>          | .45    | .55    | .60    | Volts |
| Maximum Instantaneous Forward Voltage at 3.1A DC             | V <sub>F</sub>          | .75    | .875   | .90    | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | 0.2    |        |        | mAmps |
|  | @T <sub>A</sub> = 150°C | 20     |        |        | mAmps |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2. "ROHS compliant".
3. Thermal Resistance : Mounted on PCB.
4. Also available in DO-214AA (SMB).
5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2019-01  
REV:C

## RATING AND CHARACTERISTICS CURVES ( FM5817 THRU FM5819 )

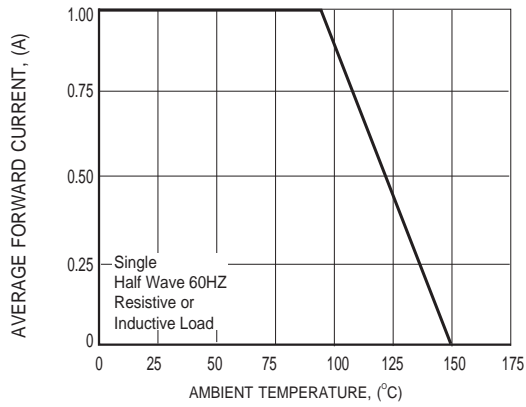


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

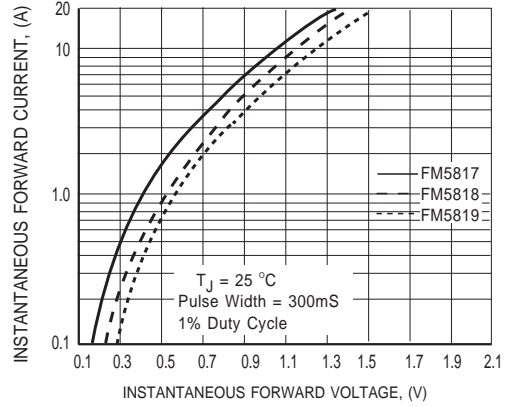


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

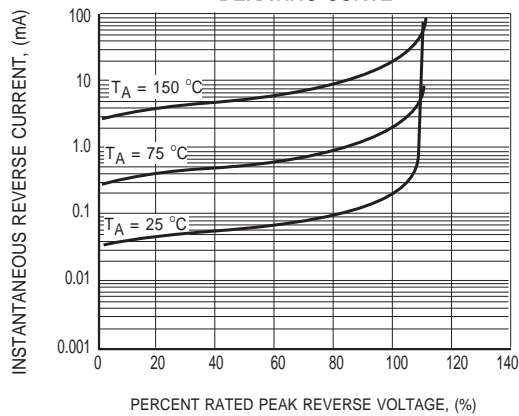


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

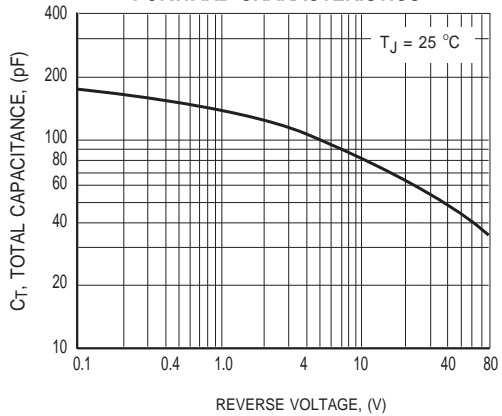


FIG.4 TYPICAL JUNCTION CAPACITANCE

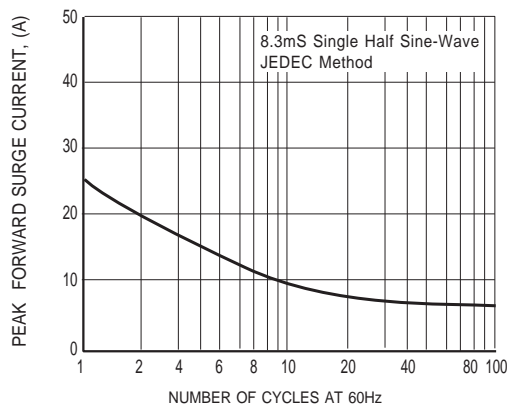
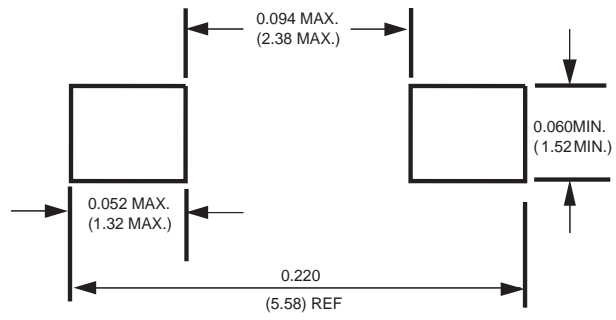


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

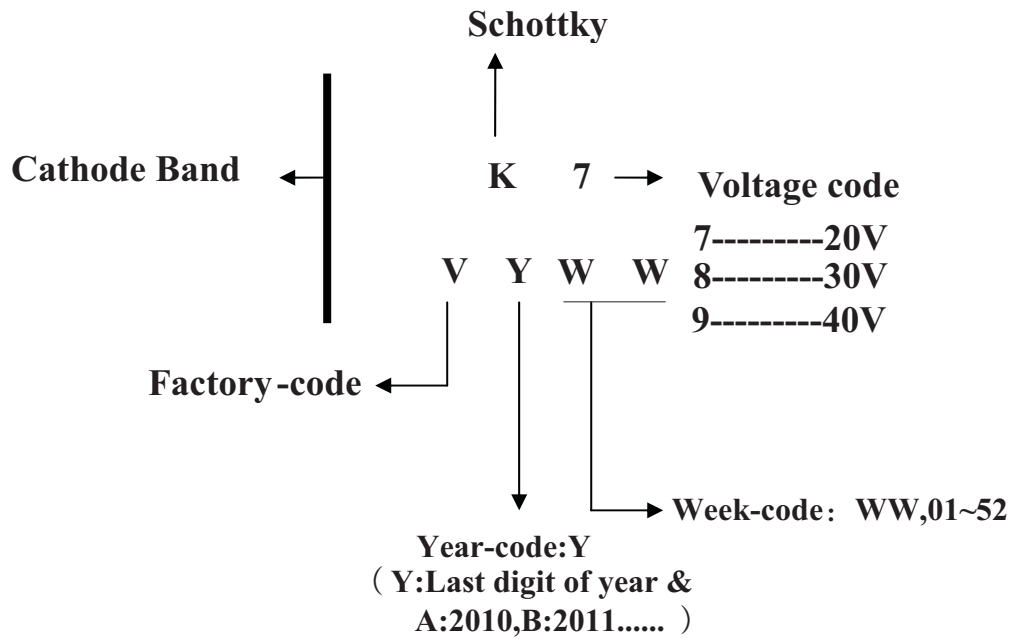


## Mounting Pad Layout



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) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| 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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