

**SURFACE MOUNT GLASS PASSIVATED  
HIGH VOLTAGE FAST RECOVERY RECTIFIER  
VOLTAGE 1800 Volts CURRENT 1.0 Ampere**

**FEATURES**

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Idea for printed circuit board
- \* Low reverse leakage
- \* High forward surge current capability
- \* Glass passivated junction
- \* High temperature soldering guaranteed 250°C/10 seconds at terminals

**MECHANICAL DATA**

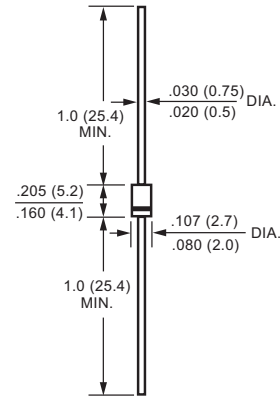
- \* Case: Molded plastic
- \* Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- \* Mounting position: Any

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



**DO-41**



\*Dimensions in inches and (millimeters)

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

| RATINGS  | SYMBOL                            | R1800FG      | UNITS            |
|--|-----------------------------------|--------------|------------------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>                  | 1800         | Volts            |
| Maximum RMS Volts  | V <sub>RMS</sub>                  | 1260         | Volts            |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>                   | 1800         | Volts            |
| Maximum Average Forward Rectified Current at T <sub>L</sub> = 100°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>                  | 30           | Amps             |
| Typical Current Squared Time   | I <sup>2</sup> t                  | 3.73         | A <sup>2</sup> S |
| Typical Thermal Resistance (Note 1)  | R <sub>θJA</sub>                  | 65           | °C/W             |
|  | R <sub>θJL</sub>                  | 30           |                  |
| Operating and Storage Temperature Range  | T <sub>J</sub> , T <sub>STG</sub> | -55 to + 150 | °C               |

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

| CHARACTERISTICS   | SYMBOL          | R1800FG | UNITS |
|---|-----------------|---------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC        | V <sub>F</sub>  | 2.5     | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ TA = 25°C     | 5.0     | uAmps |
|   | @ TA = 125 °C   | 200     | uAmps |
| Maximum Reverse Recovery Time (Note2 )                  | t <sub>rr</sub> | 500     | nSec  |

NOTES : 1. Thermal Resistance : Mounted on PCB.

2.Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = -1.0A, I<sub>RR</sub> = -0.25A

2023-10  
REV:O

## RATING AND CHARACTERISTIC CURVES ( R1800FG )

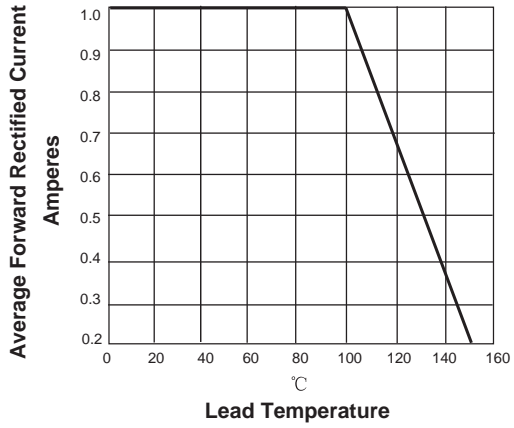


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

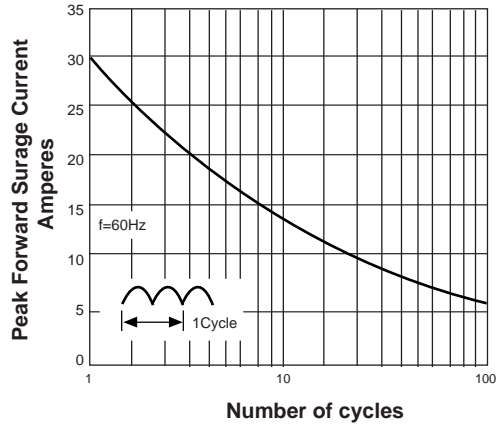


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

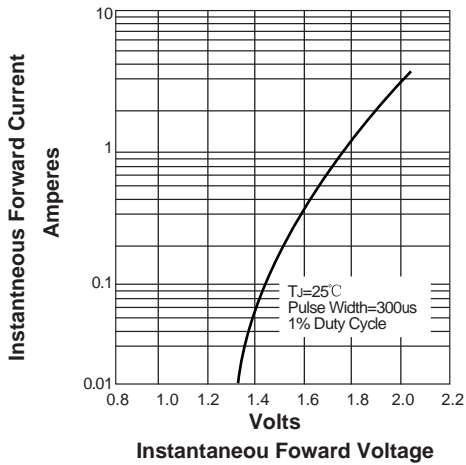


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

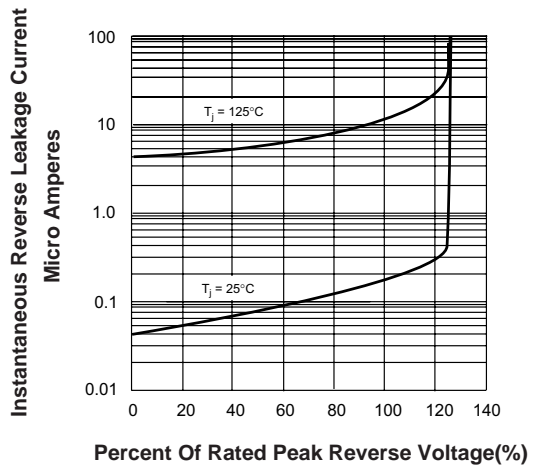
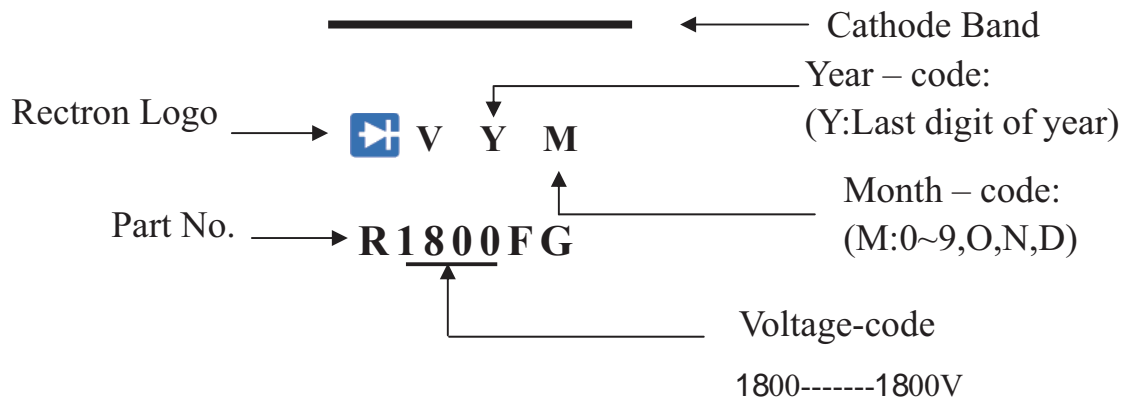


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|---------------------|------------------|---------------|------------------|
| DO-41   | -B           | 1,000      | 194*75*21           | 415*220*255      | 50,000        | 16.2             |

### 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) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| DO-41   | -T           | 5,000       | 5,000            | 5.0                  | 52              | 330           | 355*350*335      | 20,000        | 10.49            |

### AMMO PACK

| PACKAGE | PACKING CODE | REEL ( EA ) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON ( EA ) | GROSS WEIGHT (Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|-----------------|---------------|-------------------|
| DO-41   | -F           | 3,000       | 5.0                 | 52              | 255*73*100    | 400*268*225     | 30,000        | 13.0              |
| DO-41   | -E           | 3,000       | 5.0                 | 26              | 256*48*94     | 365*270*217     | 42,000        | 12.41             |

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