

## FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts  
FORWARD CURRENT - 1.0 Amperes

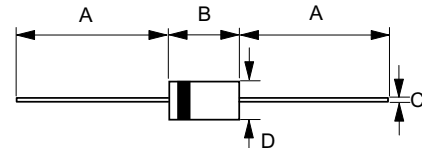
### FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

### MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

### DO-41



| DO-41                        |                    |                    |
|------------------------------|--------------------|--------------------|
| Dim.                         | Min.               | Max.               |
| A                            | 25.4               | -                  |
| B                            | 4.20               | 5.20               |
| C                            | 0.70 $\varnothing$ | 0.90 $\varnothing$ |
| D                            | 2.00 $\varnothing$ | 2.70 $\varnothing$ |
| All Dimensions in millimeter |                    |                    |

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

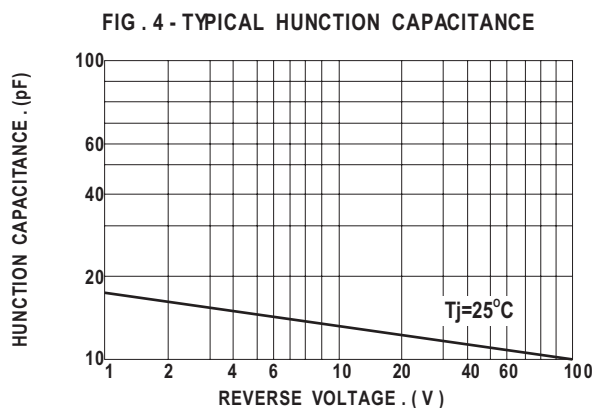
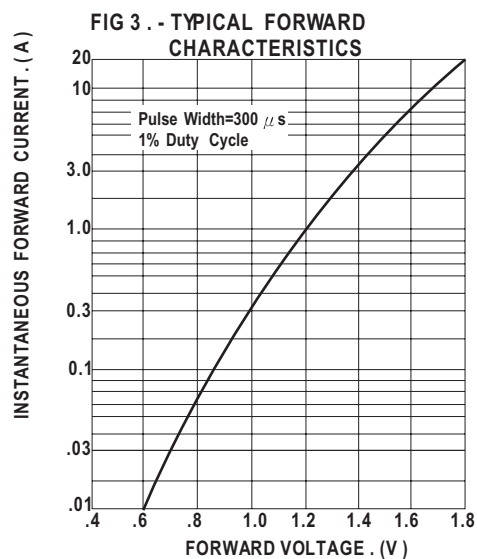
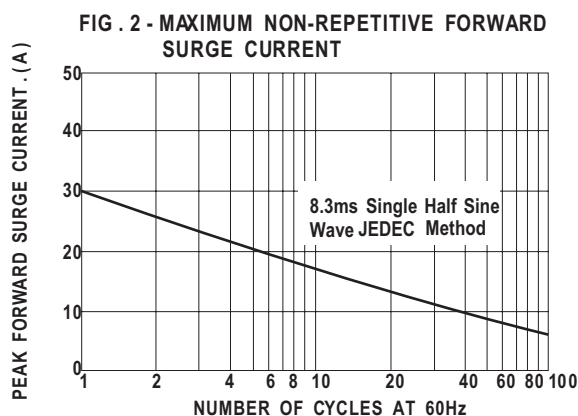
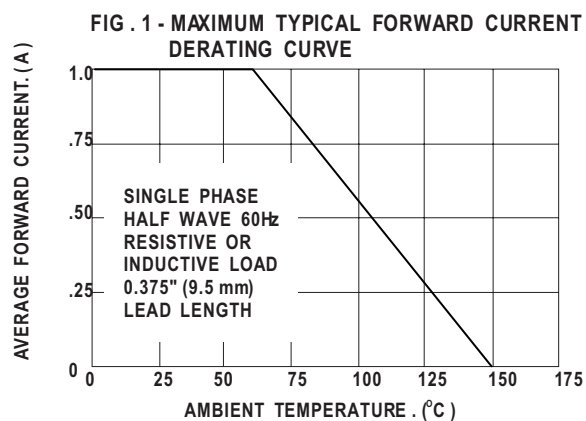
| CHARACTERISTICS  | SYMBOL            | FR101       | FR102 | FR103 | FR104 | FR105 | FR106 | FR107 | UNIT     |
|--|-------------------|-------------|-------|-------|-------|-------|-------|-------|----------|
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V        |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V        |
| Maximum DC Blocking Voltage  | V <sub>DC</sub>   | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V        |
| Maximum Average Forward Rectified Current @T <sub>A</sub> =55°C                                      | I <sub>(AV)</sub> | 1.0         |       |       |       |       |       |       | A        |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)    | I <sub>FSM</sub>  | 30          |       |       |       |       |       |       | A        |
| Maximum forward Voltage at 1.0A DC   | V <sub>F</sub>    | 1.3         |       |       |       |       |       |       | V        |
| Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C | I <sub>R</sub>    | 5.0<br>100  |       |       |       |       |       |       | uA<br>uA |
| Maximum Reverse Recovery Time (Note 1)   | T <sub>RR</sub>   | 150         |       |       |       | 250   | 500   |       | ns       |
| Typical Junction Capacitance (Note 2)  | C <sub>J</sub>    | 15          |       |       |       |       |       |       | pF       |
| Typical Thermal Resistance (Note 3)  | R <sub>θJA</sub>  | 30          |       |       |       |       |       |       | °C/W     |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to +150 |       |       |       |       |       |       | °C       |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to +150 |       |       |       |       |       |       | °C       |

NOTES : 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal Resistance Junction to Case at 9.5mm Lead Length. PCB Mounted JEDEC Registered Value.

## RATING AND CHARACTERISTIC CURVES



**FIG. 1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**

