

# FR301 - FR307-STR

**PRV : 50 - 1000 Volts**  
**Io : 3.0 Amperes**

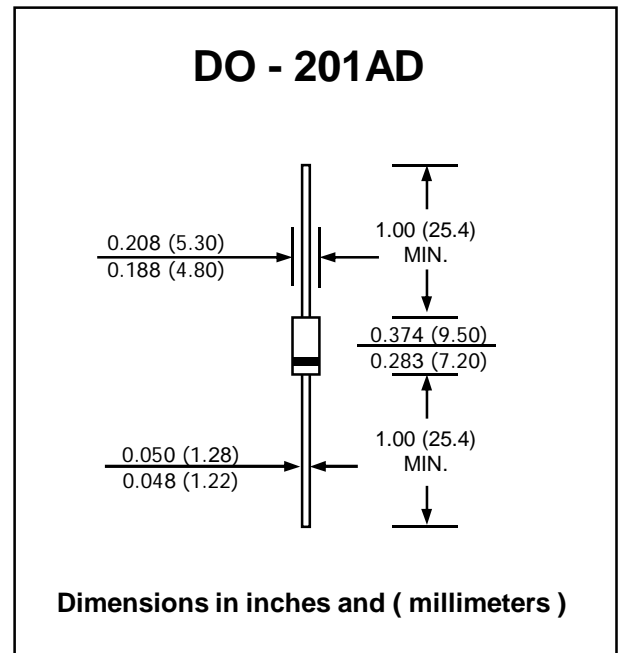
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.16 grams

# FAST RECOVERY RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

| RATING   | SYMBOL | FR301         | FR302 | FR303 | FR304 | FR305 | FR306 | FR307 | FR307-STR | UNIT |
|--|--------|---------------|-------|-------|-------|-------|-------|-------|-----------|------|
| Maximum Recurrent Peak Reverse Voltage   | VRRM   | 50            | 100   | 200   | 400   | 600   | 800   | 1000  | 1000      | V    |
| Maximum RMS Voltage  | VRMS   | 35            | 70    | 140   | 280   | 420   | 560   | 700   | 700       | V    |
| Maximum DC Blocking Voltage  | VDC    | 50            | 100   | 200   | 400   | 600   | 800   | 1000  | 1000      | V    |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length      Ta = 55 °C                           | IF(AV) | 3.0           |       |       |       |       |       |       |           | A    |
| Peak Forward Surge Current<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | IFSM   | 200           |       |       |       |       |       |       |           | A    |
| Maximum Peak Forward Voltage at IF = 3 A   | VF     | 1.3           |       |       |       |       |       |       |           | V    |
| Maximum DC Reverse Current      Ta = 25 °C<br>at Rated DC Blocking Voltage      Ta = 100 °C            | IR     | 10            |       |       |       |       |       |       |           | μA   |
|  | IR(H)  | 150           |       |       |       |       |       |       |           | μA   |
| Maximum Reverse Recovery Time ( Note 1 )   | Trr    | 150           |       |       | 250   | 500   | 250   |       |           | ns   |
| Typical Junction Capacitance ( Note 2 )  | CJ     | 60            |       |       |       |       |       |       |           | pF   |
| Junction Temperature Range   | TJ     | - 65 to + 150 |       |       |       |       |       |       |           | °C   |
| Storage Temperature Range  | TSTG   | - 65 to + 150 |       |       |       |       |       |       |           | °C   |

### Notes :

- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( FR301 - FR307-STR )

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

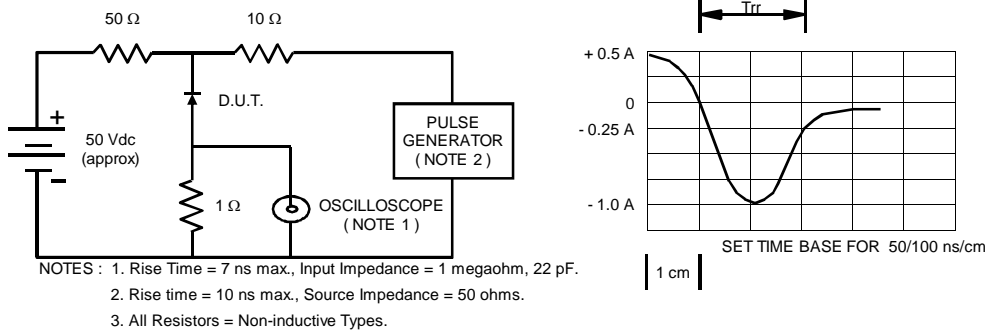


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

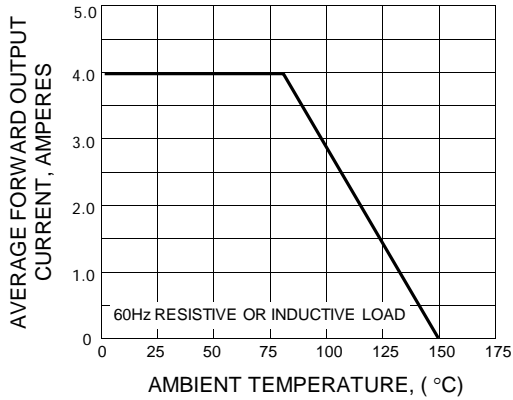


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

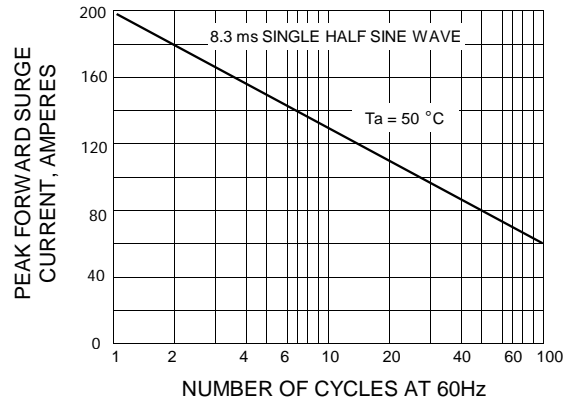


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

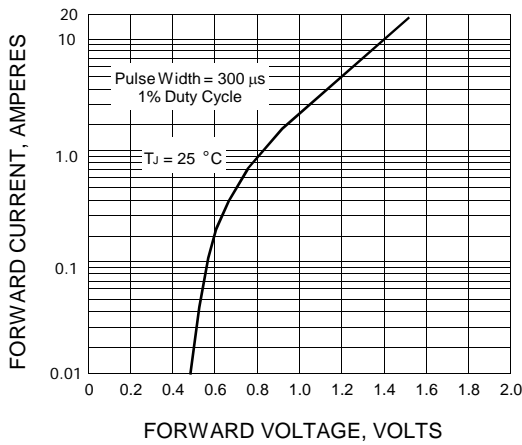
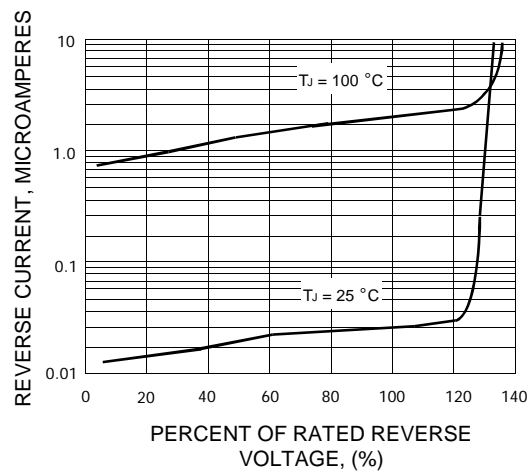


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



单击下面可查看定价，库存，交付和生命周期等信息

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