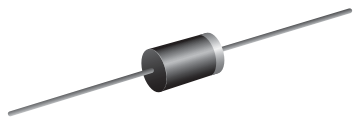
# RC2

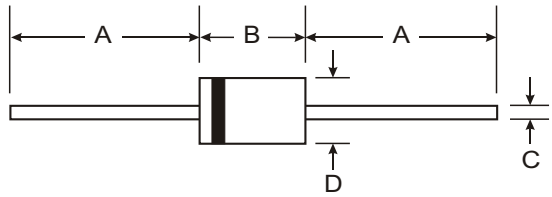
# FAST RECOVERY RECTIFIER DIODES

**VOLTAGE RANGE: 2000V**
**CURRENT: 0.2 A**



## Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents




## Mechanical Data

- Case: D O - 4 1 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

RoHS COMPLIANT

| DO-41 | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 25.40 | — |
| **B** | 4.06 | 5.21 |
| **C** | 0.71 | 0.864 |
| **D** | 2.00 | 2.72 |
| **All Dimensions in mm** | | |

## Maximum Ratings and Electrical Characteristics $T_A$ = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

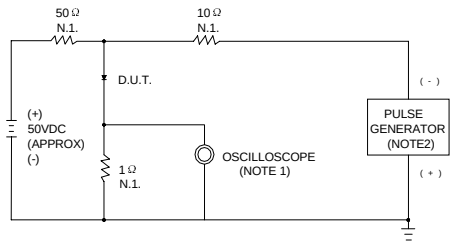
| Characteristic | Symbol | RC2 | Unit |
|---|---|---|---|
| Maximum recurrent peak reverse voltage | $V_{RRM}$ | 2000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 1400 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 2000 | V |
| Maximum average forward rectified current 9.5mm lead length, @$T_A$=75℃ | $_{F(AV)}$ | 0.2 | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @$T_J$=125℃ | $I_{FSM}$ | 20.0 | A |
| Maximum instantaneous forward voltage @ 0.2 A | $V_F$ | 2.0 | V |
| Maximum reverse current @$T_A$=25℃<br>at rated DC blocking voltage @$T_A$=100℃ | $I_R$ | 10.0<br>300.0 | μA |
| Maximum reverse recovery time (Note1) | $t_{rr}$ | 1000 | ns |
| Typical junction capacitance (Note2) | $C_J$ | 15 | pF |
| Typical thermal resistance (Note3) | $R_{\theta JA}$ | 50 | ℃/W |
| Operating junction temperature range | $T_J$ | -55----+150 | ℃ |
| Storage temperature range | $T_{STG}$ | -55----+150 | ℃ |

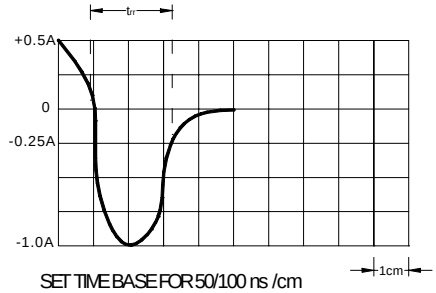
NOTE:1. Measured with $I_F$=0.5A, $I_R$=1A, $I_{rr}$=0.25A.

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

3. Thermal resistance from junction to ambient.

## FIG.1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

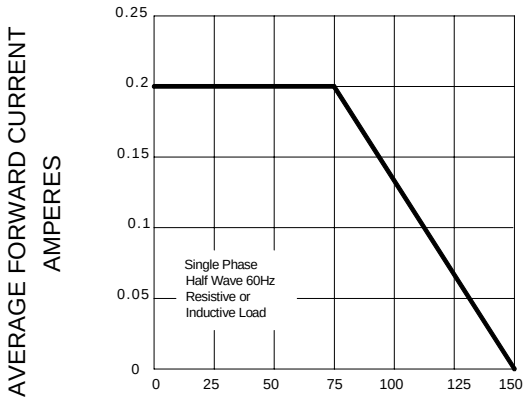


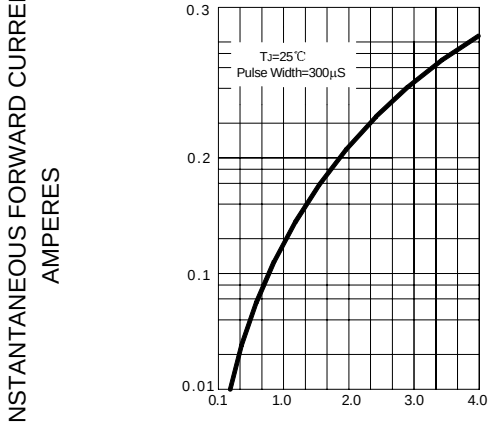

NOTES:1.RISE TIME =7ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

SET TIME BASE FOR 50/100 ns /cm

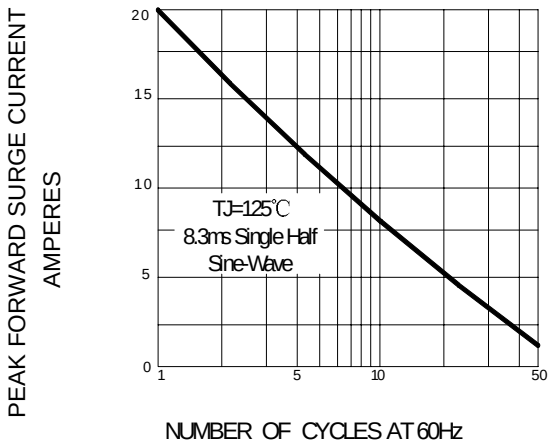
## FIG.2 – TYPICAL FORWARD DERATING CURVE




## FIG.3 – TYPICAL FORWARD CHARACTERISTIC




## FIG.4– PEAK FORWARD SURGE CURRENT




## FIG.4– TYPICAL JUNCTION CAPACITANCE