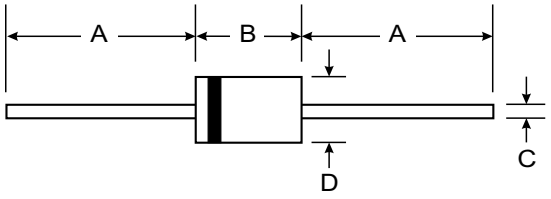
# R1200F-R2000F

0.2/0.5A Axial Leaded High Voltage Rectifier

## Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol,Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0




| 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** | | |

## Mechanical Data

- Case:JEDEC DO--41,molded plastic
- Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012ounces,0.34 grams
- Mounting position: Any

## 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%.

| | | R1200F | R1500F | R1800F | R2000F | UNITS |
|---|---|---|---|---|---|---|
| Maximum recurrent peak reverse voltage | $V_{RRM}$ | 1200 | 1500 | 1800 | 2000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 840 | 1050 | 1260 | 1400 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 1200 | 1500 | 1800 | 2000 | V |
| Maximum average forw ard rectified current 9.5mm lead length, @$T_A$=75℃ | $I_{F(AV)}$ | 0.5 | | | 0.2 | A |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @$T_J$=125℃ | $I_{FSM}$ | 30.0 | | | | A |
| Maximum instantaneous forw ard voltage @ 0.5A | $V_F$ | 2.5 | | | 4.0 | V |
| Maximum reverse current @$T_A$=25℃ | $I_R$ | 5.0 | | | | μA |
| at rated DC blocking voltage @$T_A$=100℃ | | 100.0 | | | | |
| Maximum reverse capacitance (Note1) | $t_{rr}$ | 500 | | | | ns |
| Typical thermal resistance (Note2) | $R_{\theta JA}$ | 35 | | | | ℃/W |
| Typical junction capacitance (Note3) | $C_J$ | 15 | | | | pF |
| Operating junction temperature range | $T_J$ | - 55 ---- + 150 | | | | ℃ |
| Storage temperature range | $T_{STG}$ | - 55 ---- + 150 | | | | ℃ |

NOTE: 1. Measrued with $I_F$=0.5A, $I_R$=1A, $I_{rr}$=0.25A.
2. Thermal resistance from junction to ambient.
3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

**FIG.1 – FORWARD DERATING CURVE**

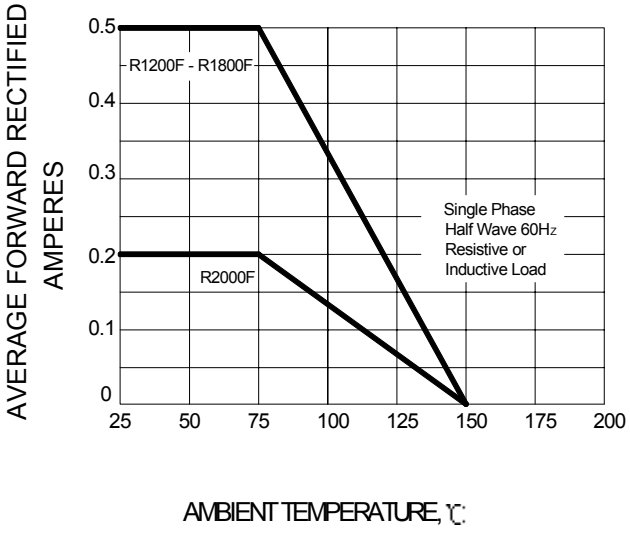



**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**

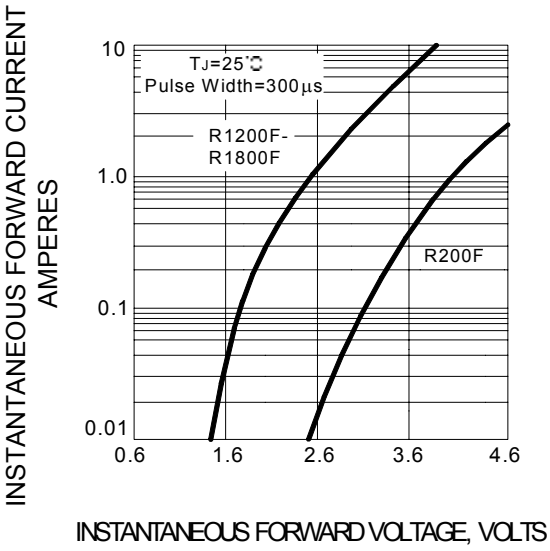



**FIG.3 – PEAK FORWARD SURGE CURREENT**

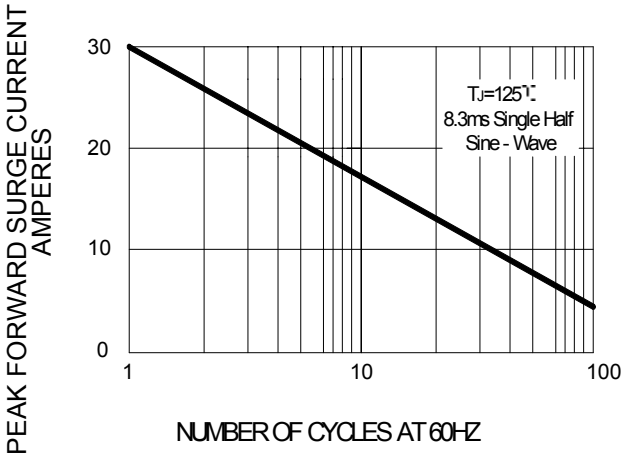



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**