# R1200F thru R2000F

**GOOD-ARK**

High Voltage Fast Recovery Rectifiers
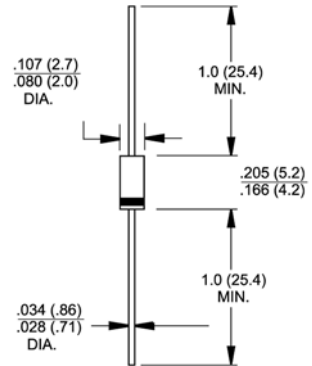Reverse Voltage 1200 to 2000 Volts    Forward Current 0.2 to 0.5 Ampere

## Features

◆ Fast switching
◆ Low leakage
◆ High current capability
◆ High surge capability
◆ High reliability

**DO-204AL (DO-41)**

## Mechanical Data

◆ Case: Molded plastic DO-204AL (DO-41)
◆ Epoxy: Device has UL flammability classification 94V-O
◆ Lead: MIL-STD-202E method 208C guaranteed
◆ Mounting position: Any
◆ Weight: 0.012 ounce, 0.335 gram

.107 (2.7)
.080 (2.0)
DIA.

1.0 (25.4)
MIN.

.205 (5.2)
.166 (4.2)

1.0 (25.4)
MIN.

.034 (.86)
.028 (.71)
DIA.

**Dimensions in inches and (millimeters)**

## Maximum Ratings and Electrical Characteristics

Ratings at 25ºC ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Parameter | Symbols | R1200F | R1500F | R1800F | R2000F | Units |
|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 1200 | 1500 | 1800 | 2000 | Volts |
| Maximum RMS voltage | $V_{RMS}$ | 840 | 1050 | 1260 | 1400 | Volts |
| Maximum DC blocking voltage | $V_{DC}$ | 1200 | 1500 | 1800 | 2000 | Volts |
| Maximum average forward rectified current at $T_A$=50ºC | $I_{F(AV)}$ | | 500 | | 200 | mAmps |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | | 30.0 | | | Amps |
| Maximum instantaneous forward voltage at 0.5A/0.2A DC | $V_F$ | | 2.5 | | 4.0 | Volts |
| Maximum DC reverse current at rated DC blocking voltage        @$T_A$=25ºC | $I_R$ | | 5.0 | | | uA |
| Maximum full load reverse current average, full cycle .375" (9.5mm) lead length at $T_L$=55ºC | $I_{R(AV)}$ | | 100 | | | uA |
| Maximum reverse recovery time (Note 1) | $t_{rr}$ | | 500 | | | nS |
| Operating junction and storage temperature range | $T_J$, $T_{STG}$ | | -55 to +150 | | | ºC |

**Notes:**    1. Test Conditions: $I_F$=0.5A, $I_R$=1.0A, $I_{RR}$=0.25A

## RATINGS AND CHARACTERISTIC CURVES

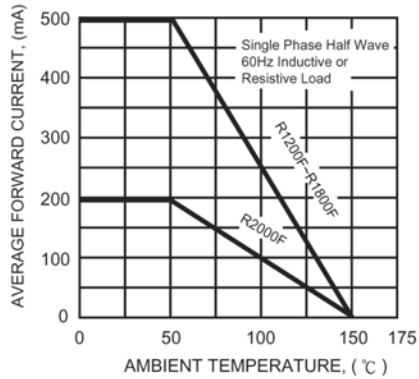FIG. 1 - TYPICAL FORWARD CURRENT
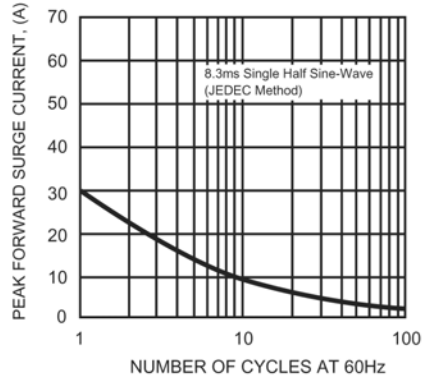DERATING CURVE

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC