

# Ultra Fast, High Power Rectifier

# Fast Recovery Series

## Features

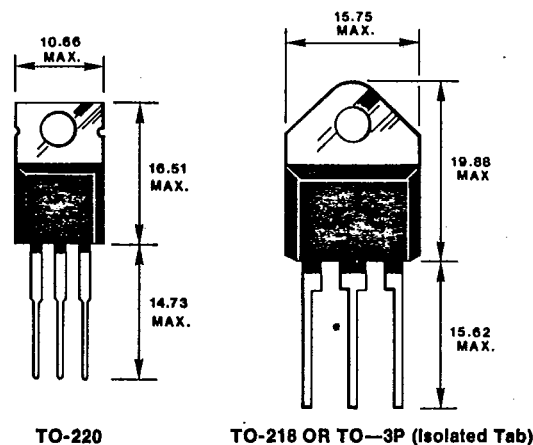
- 35 thru 200 n/sec recovery
- Reverse voltages from 50 to 600 volts
- Forward current ratings to 35 amps
- Low forward voltage
- Available in chip form

## Description

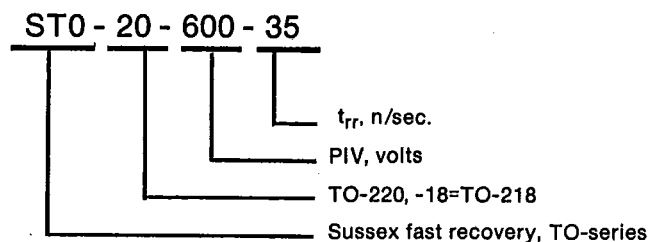
This fast recovery series combines industry standard packaging with the Sussex manufactured line of high quality diodes.

Forward and reverse polarities are available for use in half-wave bridge applications, and packages other than the TO-220 or TO-218 can also be supplied.

All fast recovery diodes are tested 100% prior to encapsulation.



## Ordering Specifier



## Maximum Ratings

| PARAMETER          | Symbol       | STO-20     | STO-18 | UNITS           |
|--------------------|--------------|------------|--------|-----------------|
| Forward Current    | $I_F$        | 16         | 35     | Amps            |
| Typ. Surge Current | $I_{FSM}$    | 300        | 700    | Amps, 1/2 cycle |
| Leakage @ 175° C   | $I_{RFM}$    | 500        | 1000   | u/Amps          |
| Operating Temp     | $T_{op}$     | -65 to 175 |        | °C              |
| Junction Temp      | $T_{j, max}$ | 175        | 175    | °C              |
| Storage Temp       | $T_{st}$     | -65 to 190 |        | °C              |
| CASE               | —            | TO-220     | TO-218 | —               |

## Fast Recovery Series

Electrical Characteristics ( $T_A = 25^\circ\text{C}$ )

| PARAMETER                    | Symbol    | STO-20      | STO-18 | UNITS                |
|------------------------------|-----------|-------------|--------|----------------------|
| Leakage @ $25^\circ\text{C}$ | $I_{RFM}$ | 15          | 30     | $\mu\text{Amps}$     |
| Peak Inverse Volts           | $P_{IV}$  | 50          | 50     | Volts/min.           |
| Peak Inverse Volts           | $P_{IV}$  | 600         | 600    | Volts/max.           |
| Forward Volts, typ.*         | $V_F$     | 1@12        | 1@35   | Volts @ $I_F$ , Amps |
| Forward Volts, max.*         | $V_F$     | 1.2@12      | 1.3@35 | Volts @ $I_F$ , Amps |
| Reverse Recovery             | $t_{rr}$  | 35 thru 200 |        | n/sec., 1-1-1/2      |

\*For 600 volt PIV device.

