

Super Fast Recovery Rectifier



Features:

- Fred chip planar construction
- Super fast switching, high efficiency
- Low forward voltage drop
- Low forward voltage current
- High surge current capacity
- Plastic package has UL flammability classification 94V-0

Mechanical Data:

| | |
|-------------------|--|
| Case | : TO-220AB Type, Molded Plastic |
| Terminals | : Pure Tin plated, Lead free Solderable Per MIL-STD-750, method 2026 |
| Polarity | : As marked |
| Weight | : 1.2 grams |
| Mounting Position | : Any |
| Reverse Voltage | : 200Volts |
| Forward Current | : 8 Amperes |

Typical Application:

For use in High Frequency Rectifier of Switching Mode Power Supplies, Freewheeling Diode, DC/DC Converters or polarity Protection Application

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

| Characteristics | Symbol | Values | Unit |
|--|-----------------|-----------------------------|---------------|
| Max. Recurrent Peak Reverse Voltage | V_{RRM} | 200 | V |
| Max. RMS Voltage | V_{RMS} | 140 | |
| Max. DC Blocking Voltage | V_{DC} | 200 | |
| Maximum Average Forward Rectified Current | $I_{(AV)}$ | 8 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC method) | I_{FSM} | 100 | |
| Peak Forward Voltage at 4A per leg | V_F | 0.95 | V |
| Max. DC Reverse Current at Rated DC Blocking Voltage | I_R | $T_J = 25^{\circ}C$ 10 | μA |
| | | $T_J = 100^{\circ}C$ 250 | |
| Max. Reverse Recovery Time (Note 1) | T_{RR} | 35 | nS |
| Typical Thermal Resistance, Junction to Case | $R_{\theta JC}$ | 2 | $^{\circ}C/W$ |
| Operating Temperature Range | T_J | -55 to +150 | $^{\circ}C$ |
| Storage Temperature Range | T_{STG} | | |

Notes:

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. The typical data above is for reference only

Super Fast Recovery Rectifier

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

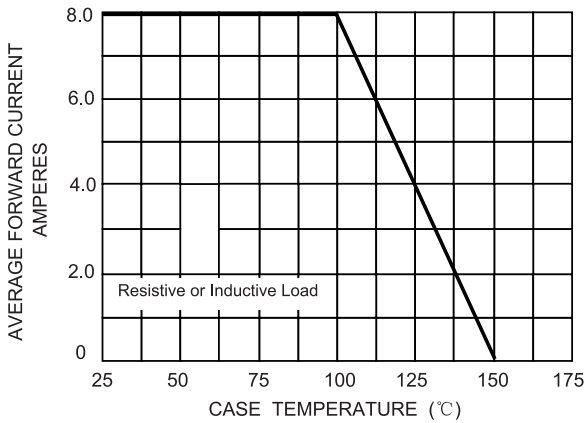


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

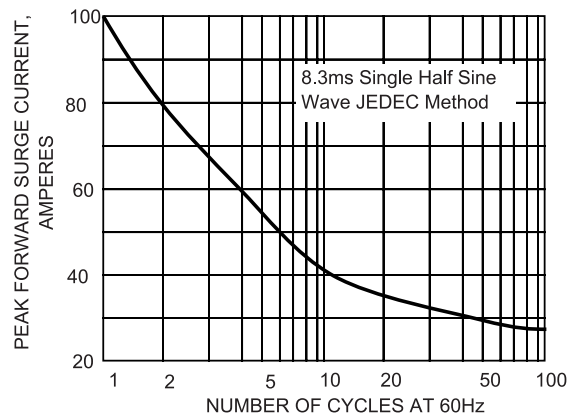


FIG.3-TYPICAL REVER CHARACTERISTICS

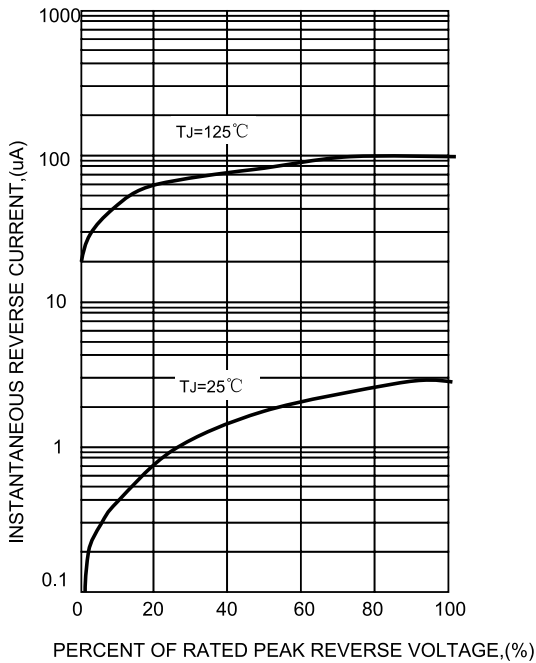
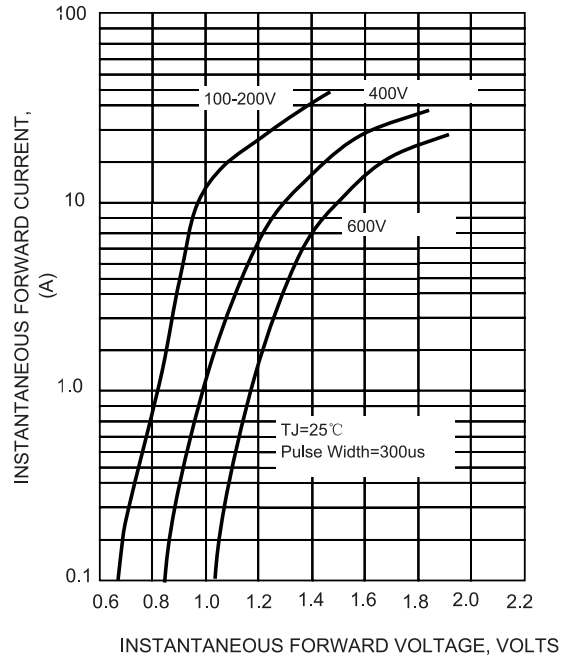


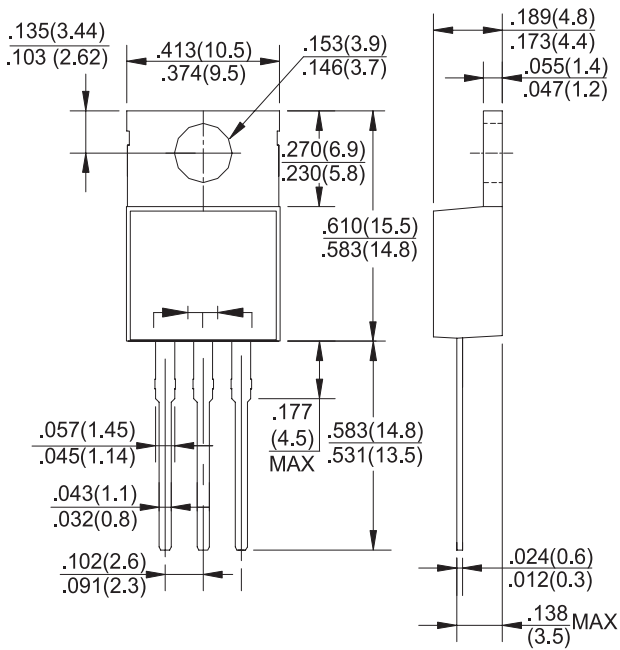
FIG.4-TYPICAL FORWARD CHARACTERISTICS



Super Fast Recovery Rectifier

Dimensions:

TO-220AB



Dimensions : Inches (Millimetres)

Part Number Table

| Description | Part Number |
|-------------------------------|-------------|
| Super Fast Recovery Rectifier | SF804CT |

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

www.element14.com
www.farnell.com
www.newark.com

