

Ultra fast Rectifier
SFF1604
FEATURES

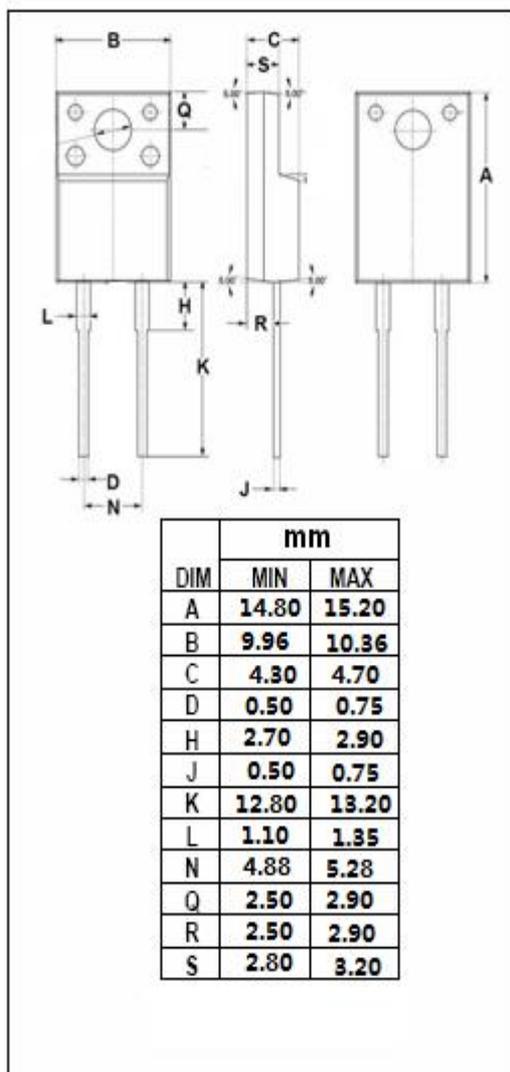
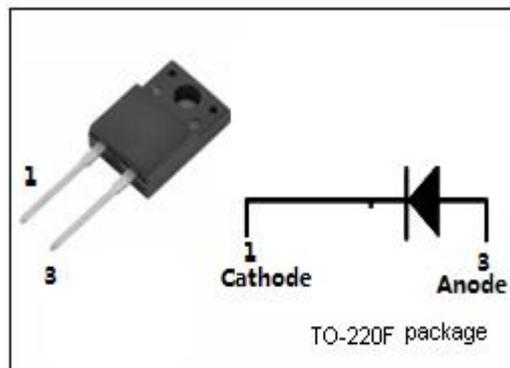
- With TO-220 packaging
- Ultra low forward voltage
- Low switching loss
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General rectification

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|--------|---|---------|------|
| VRRM | Peak Repetitive Reverse Voltage | 200 | V |
| VRWM | Working Peak Reverse Voltage | 140 | |
| VR | DC Blocking Voltage tw=500ns;duty=1/40 | 200 | |
| IF(AV) | Average Rectified Forward Current @T _c =75°C | 16 | A |
| IFSM | Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions;One shot | 200 | A |
| TJ | Junction Temperature | -55~150 | °C |
| Tstg | Storage Temperature Range | -55~150 | °C |



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THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|-----|------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 2.5 | °C/W |

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|----------|---------------------------------------|--|-----------|------|
| V_F | Maximum Instantaneous Forward Voltage | $I_F=16\text{A}$ | 1.0 | V |
| I_R | Maximum Instantaneous Reverse Current | $V_R=V_{RWM};$ $V_R=V_{RWM}; T_J=100^\circ\text{C}$ | 10 150 | mA |
| t_{rr} | Maximum Reverse Recovery Time | $I_F=0.5\text{A}; I_R=1\text{A}, I_{RR}=0.25\text{A}$ | 35 | ns |

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