

Ultra fast Rectifier

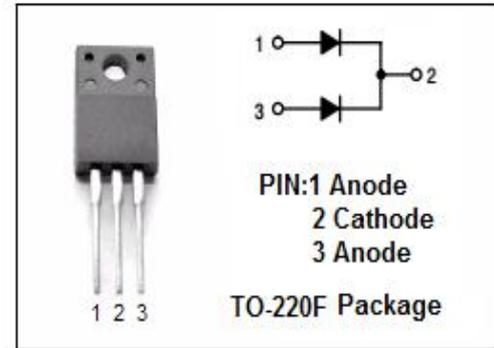
SFF1601G

FEATURES

- With TO-220F packaging
- High junction temperature capability
- Low forward voltage, high current capability
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

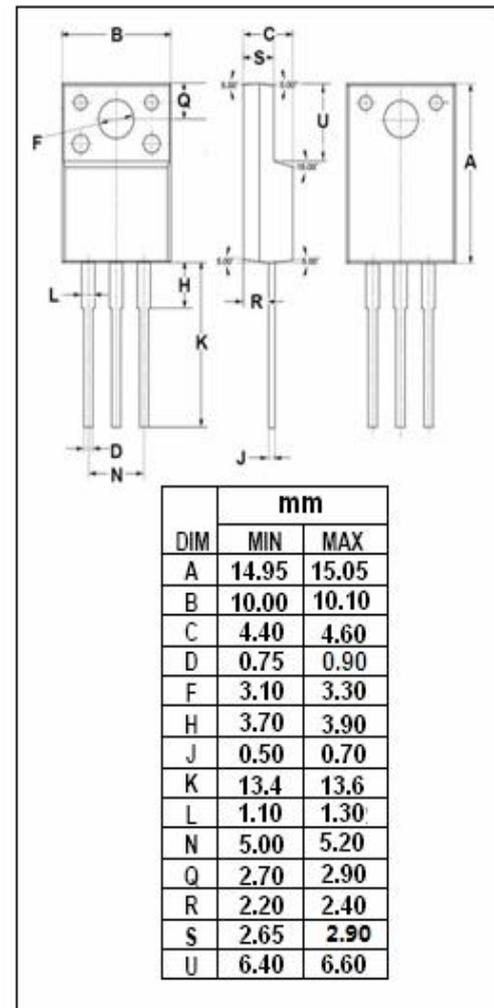
APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	50	V
I _{F(AV)}	Average Rectified Forward Current @T _c =110°C	16	A
I _{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions)	125	A
T _J	Junction Temperature	-65~150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=8A$	0.975	V
I_R	Maximum Instantaneous Reverse Current	$V_R=$ rated V_{RRM} ; $T_C=25^{\circ}C$ $V_R=$ rated V_{RRM} ; $T_C=100^{\circ}C$	10 400	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5A$; $I_R=1.0A$, $I_{RR}=0.25A$	35	ns

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