

**Ultra fast Rectifier**
**SFF1005G**
**FEATURES**

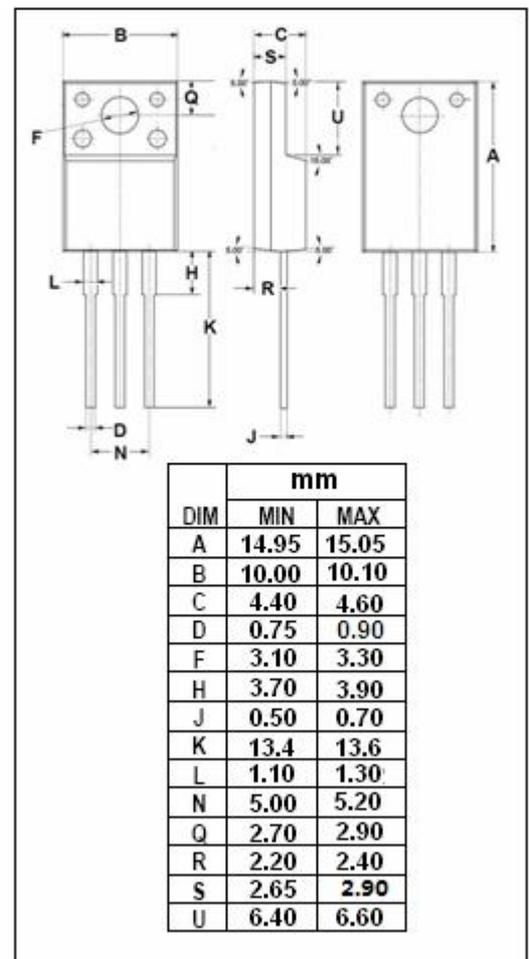
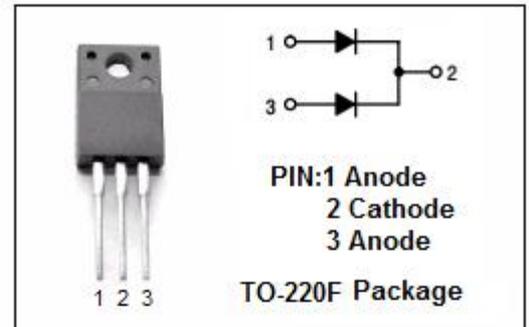
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching power supply
- Power switching circuits
- General purpose

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
VRRM	Peak Repetitive Reverse Voltage	300	V
VRWM	Working Peak Reverse Voltage	210	
VR	DC Blocking Voltage $t_w=500ns; duty=1/40$	300	
IF(AV)	Average Rectified Forward Current @T <sub>c</sub> =100°C	10	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	125	A
TJ	Junction Temperature	-65~150	°C
Tstg	Storage Temperature Range	-65~150	°C



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>thj-c</sub>	Thermal Resistance, Junction to Case	2	°C/W

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)** (Pulse Test: Pulse Width=300 μs, Duty Cycle ≤ 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> =5A ; T <sub>j</sub> =25°C	1.3	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = V <sub>RWM</sub> ; T <sub>j</sub> =25°C V <sub>R</sub> = V <sub>RWM</sub> ; T <sub>j</sub> =100°C	10 400	μ A
t <sub>rr</sub>	Maximum Reverse Recovery Time	I <sub>F</sub> =0.5A; I <sub>R</sub> =1A; I <sub>RR</sub> = 0.25A	35	ns

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