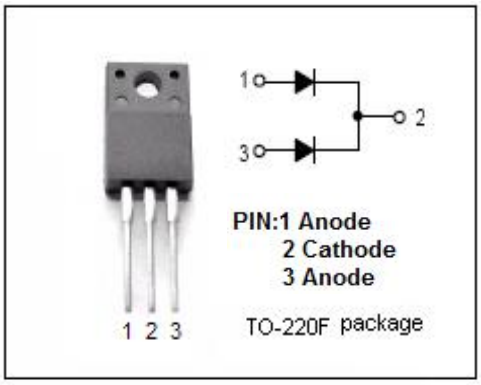
Ultra fast Rectifier UGF2008

FEATURES

- High junction temperature capability
- Low forward voltage
- 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

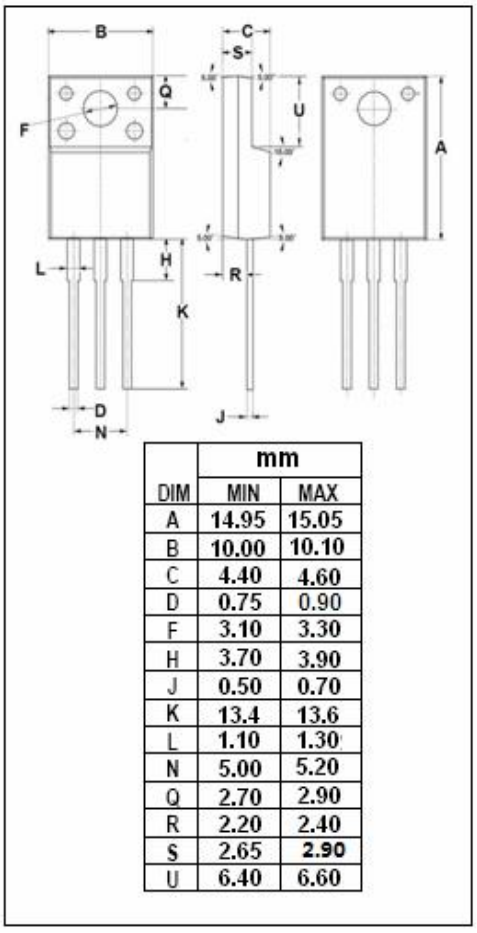


ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current @Tc=110℃	20	A
I_{FSM}	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)	150	A
T_J	Junction Temperature	-40~150	℃
T_{stg}	Storage Temperature Range	-40~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.0	℃/W



DIM	mm MIN	MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.90
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.90
U	6.40	6.60

Ultra fast Rectifier UGF2008

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μs,Duty Cycle≤1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F=10A;Tc=25℃ I_F=10A;Tc=125℃	1.65 1.55	V
I_R	Maximum Instantaneous Reverse Current	V_R= rated V_{RRM};Tc=25℃ V_R= rated V_{RRM};Tc=100℃	50 500	μA
t_{rr}	Maximum Reverse Recovery Time	I_F =1A;I_{RR}=1A;Irec=0.25A	35	ns