

**Ultra fast Rectifier**
**FFA60UA60DN**
**FEATURES**

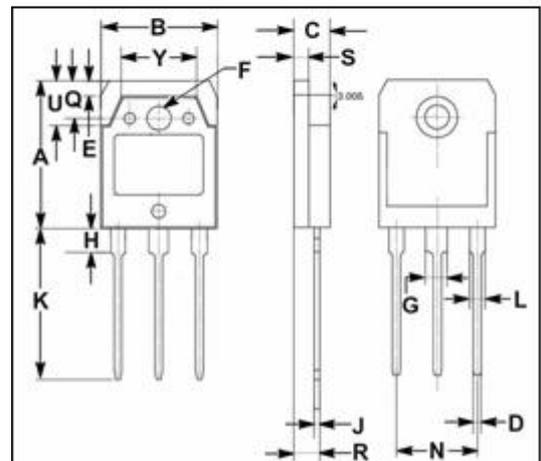
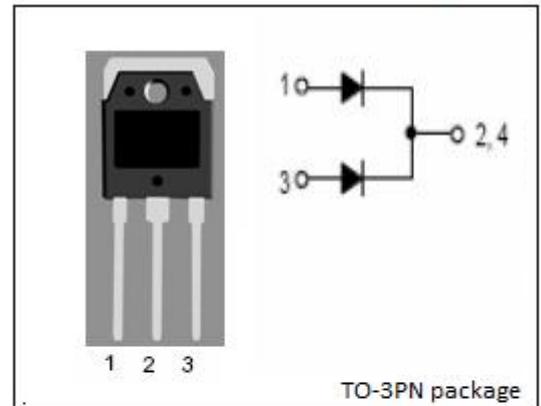
- With TO-3P packaging
- Low leakage current
- Super high speed switching
- High reliability by planer design
- Very low on-state loss
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching power supply
- Active PFC in air conditioner
- Interleaved PFC topology in switched-mode power supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage $t_w=500ns; duty=1/40$	600	V
IF(AV)	Average Rectified Forward Current @T <sub>c</sub> =96°C; Square Wave; Duty=1/2	30	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	180	A
TJ	Junction Temperature	-65~150	°C
Tstg	Storage Temperature Range	-65~150	°C



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th,j-c}$	Thermal Resistance, Junction to Case	1.3	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=30\text{A}; T_c=25^{\circ}\text{C}$ $I_F=30\text{A}; T_c=125^{\circ}\text{C}$	2.2 2.0	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_c=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_c=125^{\circ}\text{C}$	100 150	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=30\text{A}; di/dt=200\text{A}/\mu\text{S}$	90	ns

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