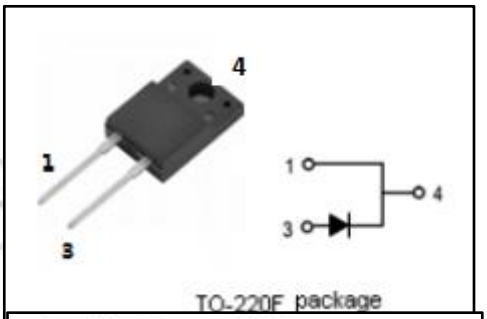
Ultrafast Rectifier

BYV29X-600

FEATURES

- 600V blocking voltage
- Low forward voltage drop
- Fast switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



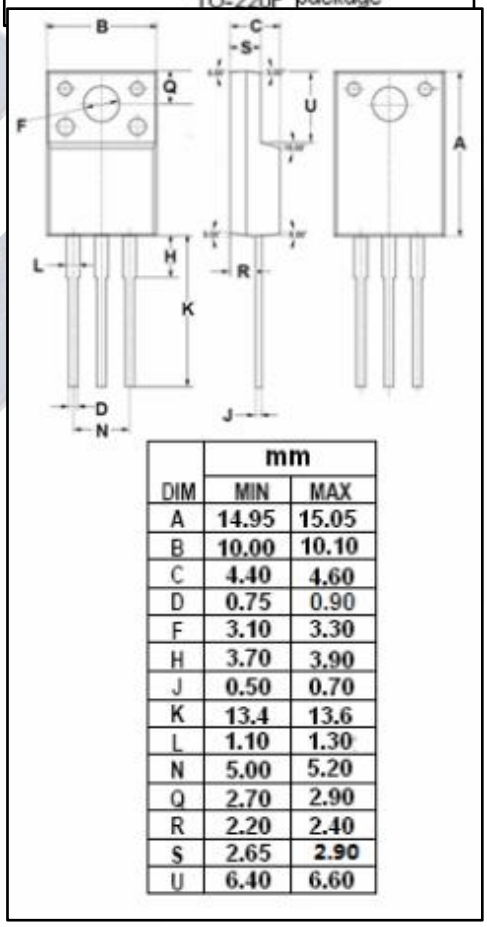
TO-220F package

APPLICATIONS

- Switch mode power supplies
- Output rectifier in high frequency

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
$I_{F(AV)}$	Average Rectified Forward Current	9	A
I_{FSM}	Non-repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
T_J	Junction Temperature	-40~150	℃
T_{stg}	Storage Temperature Range	-40~150	℃



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

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	5.5	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F*}	Maximum Instantaneous Forward Voltage	I_F=8A ;Tj=25℃ I_F=8A ;Tj=150℃	1.26 1.11	V
I_{R*}	Maximum Instantaneous Reverse Current	V_R= 600V;Tj=100℃ V_R= 600V	350 50	μA
t_{rr}	Maximum Reverse Recovery Time	IF =1A;di/dt = 100A/μs	60	ns

*:Pulse test ,Pulse width=300us,duty cycle≤2%