

Ultra fast Rectifier

BYV415K-600P

FEATURES

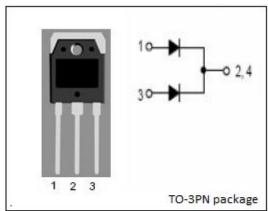
- With TO-3PN packaging
- · Low thermal resistance
- · Low leakage current
- · Super high speed switching
- · High reliability by planer design
- Very low on-state loss
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

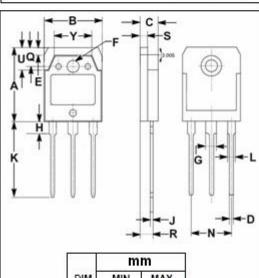
APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage tw=500ns;duty=1/40	600	V
IF(AV)	Average Rectified Forward Current @Tc=96℃;Square Wave; Duty=1/2	15	Α
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	140	А
TJ	Junction Temperature	-65~175	$^{\circ}$
Tstg	Storage Temperature Range	-65~175	$^{\circ}$ C





DIM	MIN	MAX	
Α	19.60	20.30	
В	15.50	15.70	
С	4.70	4.90	
D	0.90	1.10	
E	1.90	2.10	
F	3.40	3.60	
G	2.90	3.20	
Н	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-mb}	Thermal Resistance,Junction to Mounting Base		°C/W

ELECTRICAL CHARACTERISTICS(Ta=25℃) (Pulse Test: Pulse Width=300 µ s,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
VF	Maximum Instantaneous Forward Voltage	I _F =10A;Tc=25℃ I _F =10A;Tc=150℃	2.1 1.4	V
lR	Maximum Instantaneous Reverse Current	V _R = V _{RWM} ;Tc=25°C V _R = V _{RWM} ;Tc=150°C	10 500	μА
t _{rr}	Maximum Reverse Recovery Time	IF =1A;V _R =30V;diF/dt=100A/ μ s	50	ns

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