

Ultra fast Rectifier
BYV430W-300P
FEATURES

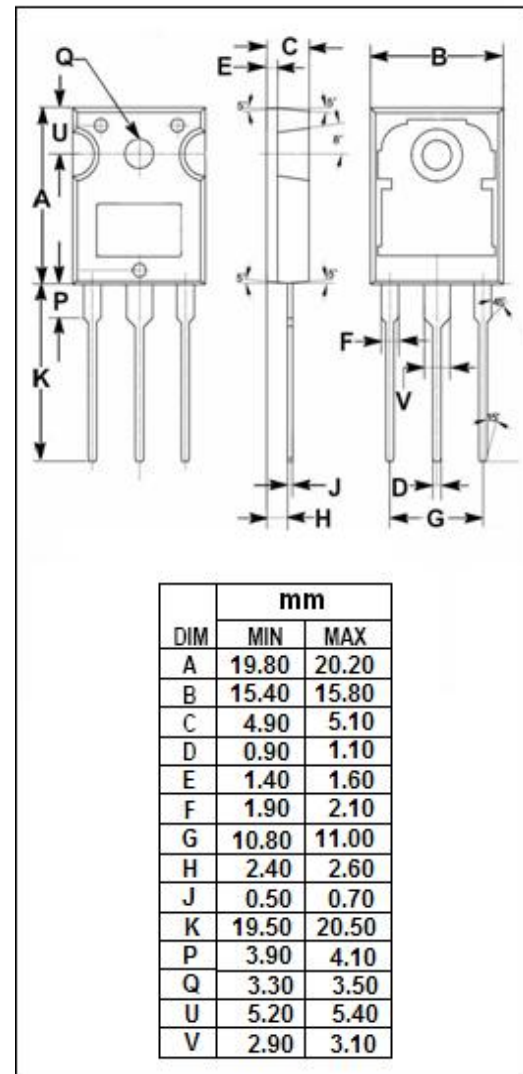
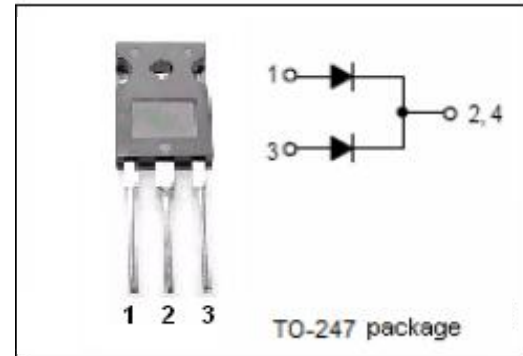
- With TO-247 packaging
- High junction temperature capability
- Low forward voltage
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	300	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_c=110^\circ\text{C}$	30	A
I_{FSM}	RMS Forward Current	60	A
I_{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions)	330	A
T_J	Junction Temperature	-55~175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^\circ\text{C}$



Ultra fast Rectifier

BYV430W-300P

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.2	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle $\leq$ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 30A$; $T_c = 25^{\circ}C$ $I_F = 30A$; $T_c = 125^{\circ}C$	1.25 1.00	V
I_R	Maximum Instantaneous Reverse Current	$V_R = \text{rated } V_{RRM}$; $T_j = 25^{\circ}C$ $V_R = \text{rated } V_{RRM}$; $T_j = 150^{\circ}C$	10 500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1A$; $diF/dt = -50A/\mu s$; $V_R = 30V$	50	ns

NOTICE:

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.