

**Ultra fast Rectifier**
**BYW29E**
**FEATURES**

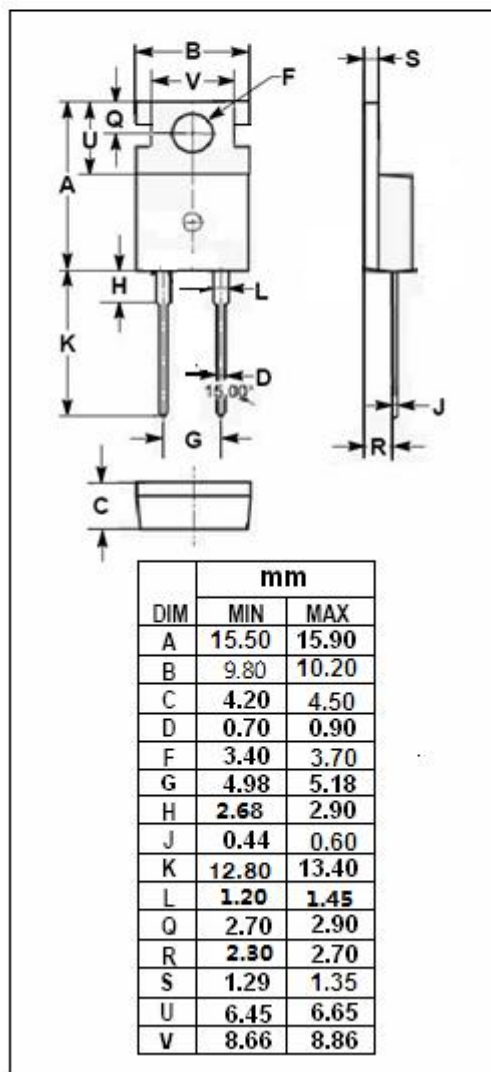
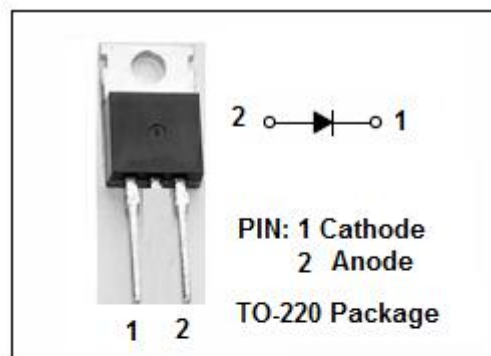
- High surge capacity
- Low Forward Voltage
- Low Leakage Current
- 150°C Operating Junction Temperature
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power supply-output rectification
- Power management
- Instrumentation

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>R</sub> RM V <sub>R</sub> WM V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
I <sub>F</sub> (AV)	Average Rectified Forward Current	8	A
I <sub>FM</sub>	Peak Repetitive Forward Current	16	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase)	50HZ 80 60HZ 88	A
T <sub>J</sub>	Junction Temperature	-40~150	°C
T <sub>stg</sub>	Storage Temperature Range	-40~150	°C



**Ultra fast Rectifier**
**BYW29E**
**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.7	$^{\circ}C/W$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	60	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=8A; T_j=150^{\circ}C$ $I_F=8A; T_j=25^{\circ}C$ $I_F=20A; T_j=25^{\circ}C$	0.895 1.05 1.3	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=100^{\circ}C$ $V_R=V_{RWM}$	600 10	$\mu$ A
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1A; V_R \geq 30V; di/dt = 100A/\mu s$	25	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.