

Ultrafast Rectifier diodes

BYV42E-200
FEATURES

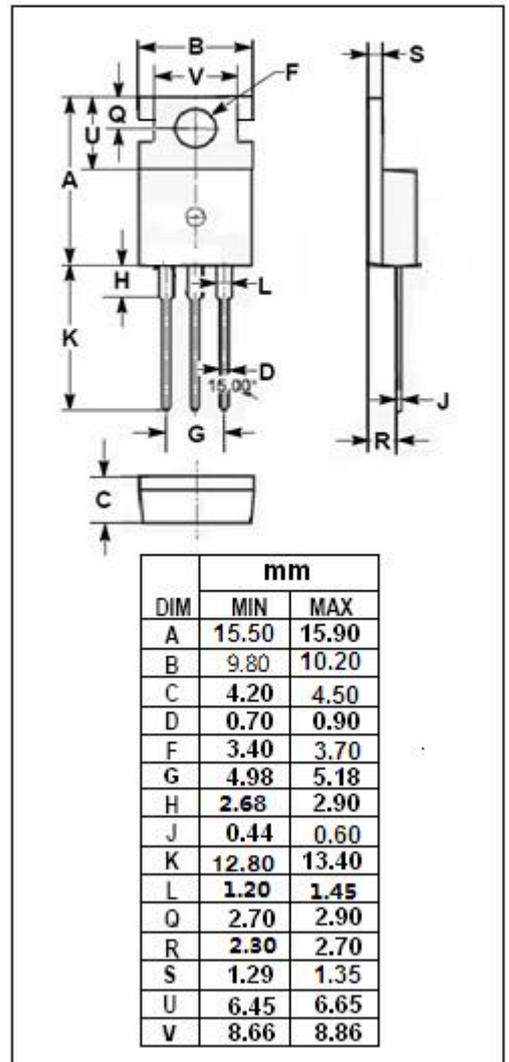
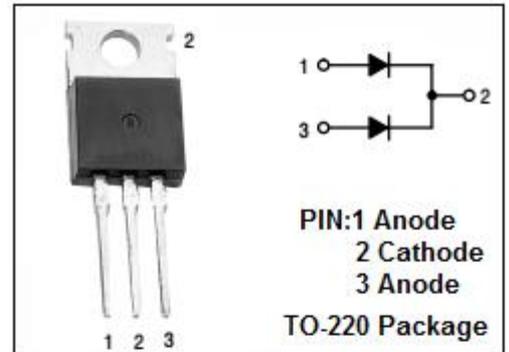
- Metal silicon junction, majority carrier conduction
- Low Power Loss/High Efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- High temperature soldering guaranteed
- RoHS product
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low-voltage, high frequency inverters, free wheeling and polarity protection applications .

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 125°C	15	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz) T _C = 125°C	30	A
I _{RRM}	Peak Repetitive Reverse Surge Current (20 μs, 1.0kHz)	0.2	A
T _J	Junction Temperature	-40~150	°C
T _{stg}	Storage Temperature Range	-40~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.5	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μs, Duty Cycle ≤ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 15A ; T _C = 25°C I _F = 30A ; T _C = 25°C	1.05 1.2	V
I _R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T _C = 25°C	0.1	mA

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