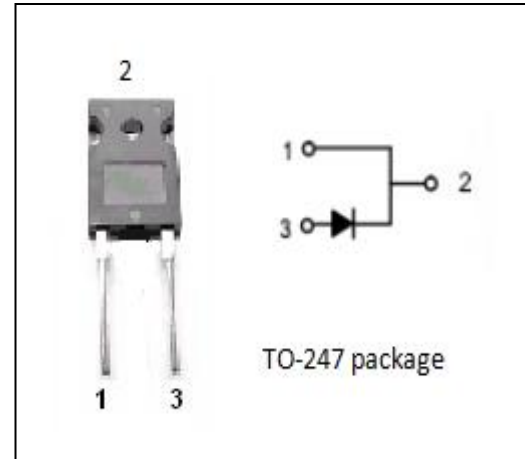


Ultrafast Rectifier
BYR16W-1200
FEATURES

- Fast switching
- Low forward voltage drop
- Low thermal resistance
- Soft recovery characteristic
- Reduces switching losses in associated MOSFET or IGBT
- Planar passivated for voltage ruggedness and reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


APPLICATIONS

- Switched-Mode Power Supplies
- Power factor correction diode
- Uninterrupted Power Supply
- Motor drive and SMPS freewheeling diode

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _R RM V _R WM V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
I _F (AV)	Average Rectified Forward Current; $\delta = 0.5$; T _{mb} ≤ 98 ° C; square-wave	16	A
I _{FSM}	Nonrepetitive Peak Surge Current Sine-wave	t _p =10ms 150 t _p =8.3ms 165	A
T _J	Max.Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

Ultrafast Rectifier

BYR16W-1200

ELECTRICAL CHARACTERISTICS(T_a=25°C)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 16A; T _j =25°C I _F = 16A; T _j =125°C I _F = 32A; T _j =25°C	3.0 2.7 3.9	V
I _R	Maximum Instantaneous Reverse Current	V _R =1200V; T _j =25°C V _R =1200V; T _j =125°C	100 2	μ A mA
t _{rr}	Maximum Reverse Recovery Time	I _F =1A;V _R =30V;dI _F /dt=200A/μ s;	40	ns

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