

Ultra fast Rectifier

BY329X-1500S

FEATURES

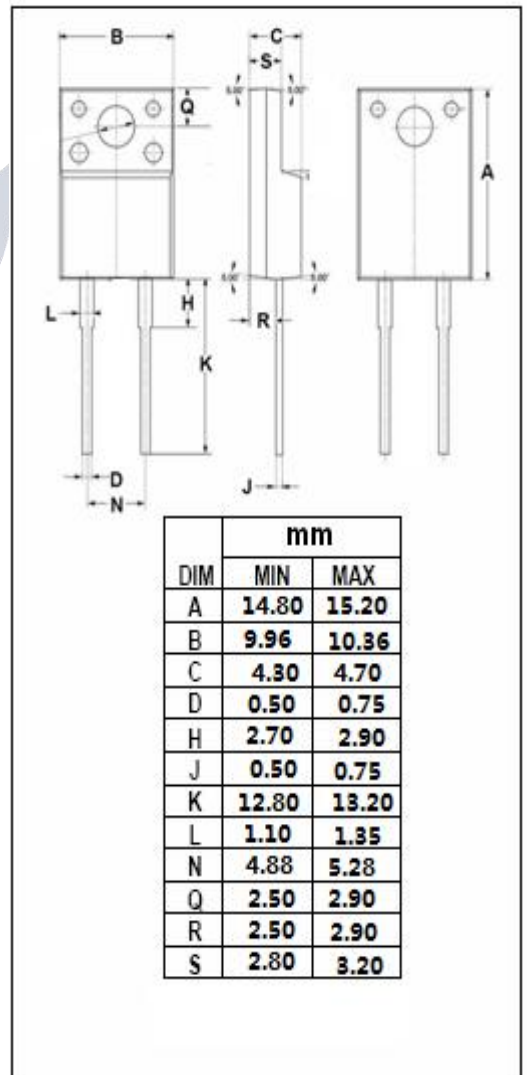
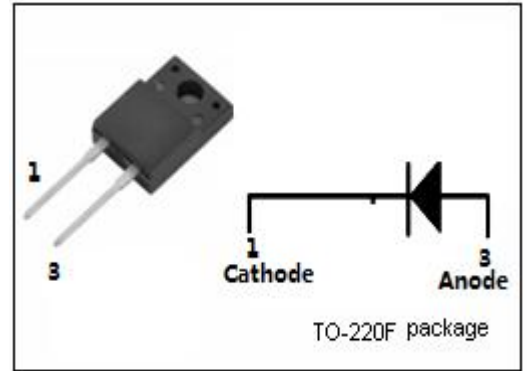
- With TO-220F packaging
- Low switching loss
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General rectification

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage tw=500ns;duty=1/40	1500	V
IF(AV)	Average Rectified Forward Current	14	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions;One shot	75	A
TJ	Junction Temperature	-40~150	°C
Tstg	Storage Temperature Range	-40~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	4.8	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=6.5\text{A}, T_j=25^{\circ}\text{C}$ $I_F=6.5\text{A}, T_j=125^{\circ}\text{C}$	1.6 1.5	V
I_R	Maximum Instantaneous Reverse Current	$V_R=1300, T_j=25^{\circ}\text{C}$ $V_R=1300, T_j=125^{\circ}\text{C}$	250 1000	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}; di_F/dt=50\text{A}/\mu\text{s}; V_R=30\text{V}$	160	ns

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