

# Fast Recovery Rectifier

## BYT08P-400

### FEATURES

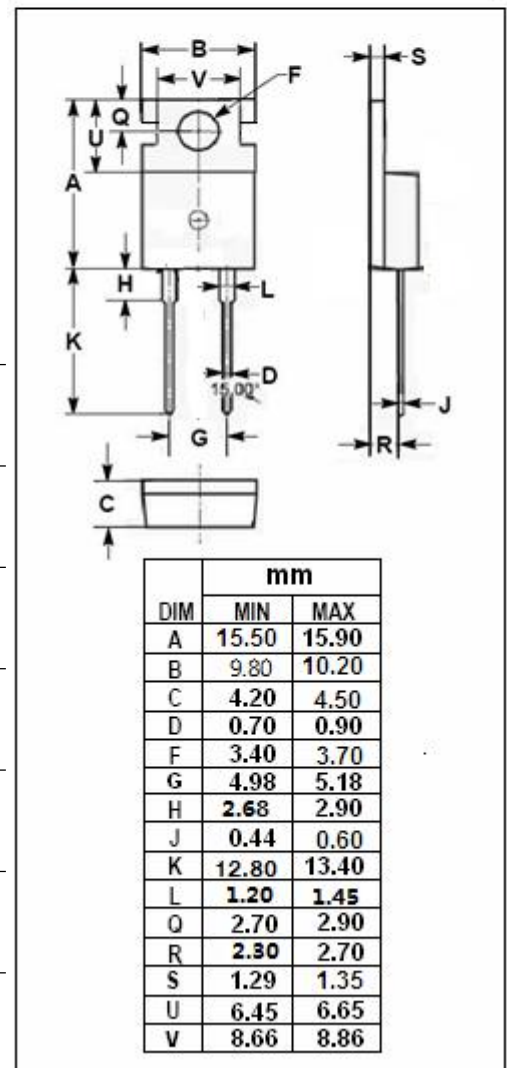
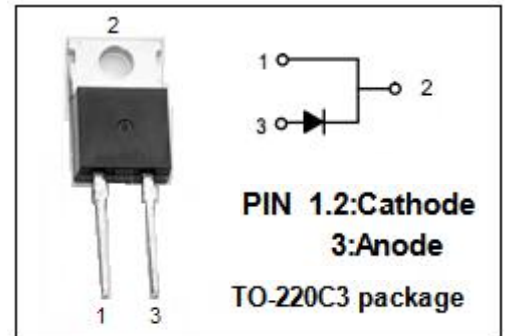
- Ultrafast with soft recovery
- Operating temperature
- Reverse voltage
- Avalanche energy rated
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	400	V
$I_{F(AV)}$	Average Rectified Forward Current	8	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
$P_D$	Maximum power dissipation	50	W
$T_J$	Junction Temperature	-40~150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-40~150	$^{\circ}\text{C}$



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal Resistance, Junction to Case	2.5	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F^*$	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}; T_j=25^{\circ}\text{C}$	1.5	V
		$I_F=8\text{A}; T_j=100^{\circ}\text{C}$	1.4	
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}$	15	$\mu$ A
		$V_R=V_{RWM}; T_j=100^{\circ}\text{C}$	2.5	mA
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1\text{A}; di/dt=50\text{A}/\mu\text{s}$	75	ns

\*:Pulse test ,Pulse width=300us,duty cycle $\leq 2\%$

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