

## Ultra fast Rectifier

## ETH1506FP

### FEATURES

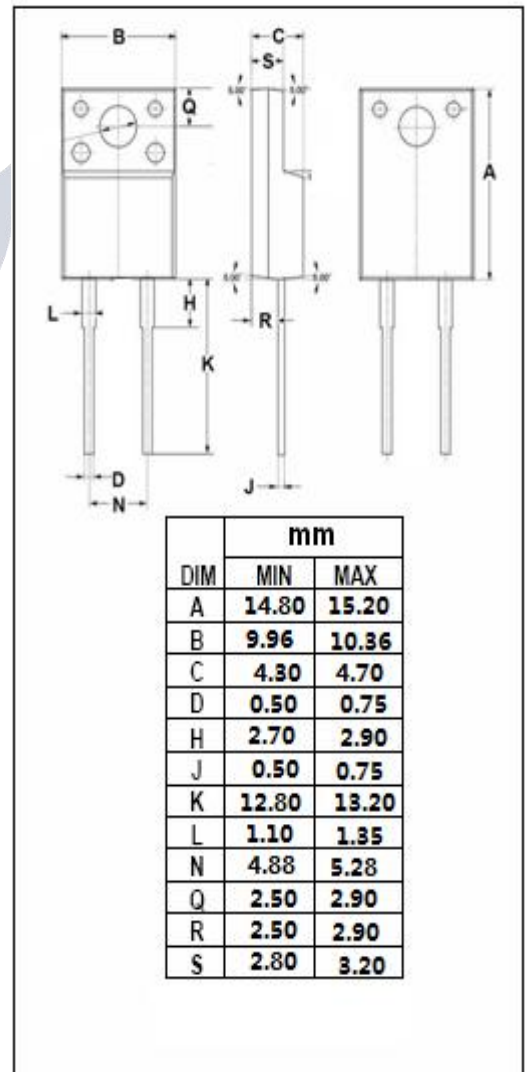
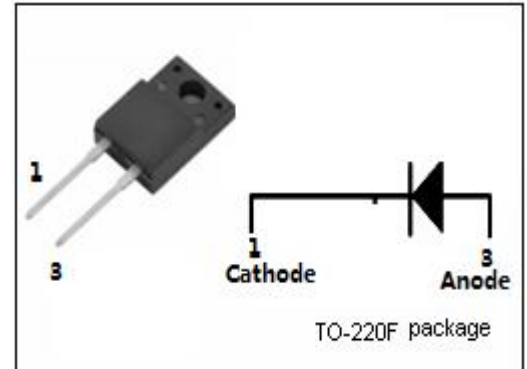
- With TO-220F packaging
- Low switching loss
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Switching power supply
- Power switching circuits
- General rectification

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

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage $t_w=500\text{ns}; \text{duty}=1/40$	600	V
IF(AV)	Average Rectified Forward Current @ $T_c=94^{\circ}\text{C}$	15	A
IFSM	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions; One shot	160	A
TJ	Junction Temperature	-65~175	$^{\circ}\text{C}$
Tstg	Storage Temperature Range	-65~175	$^{\circ}\text{C}$



**Ultra fast Rectifier****ETH1506FP****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.3	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F=15\text{A}$	2.45	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_j=150^{\circ}\text{C}$	15 200	$\mu\text{A}$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=0.5\text{A}; diF/dt=100\text{A}/\mu\text{s}, V_R=30\text{V}$	36	ns

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