

Ultra fast Rectifier

ETL1506-M3

FEATURES

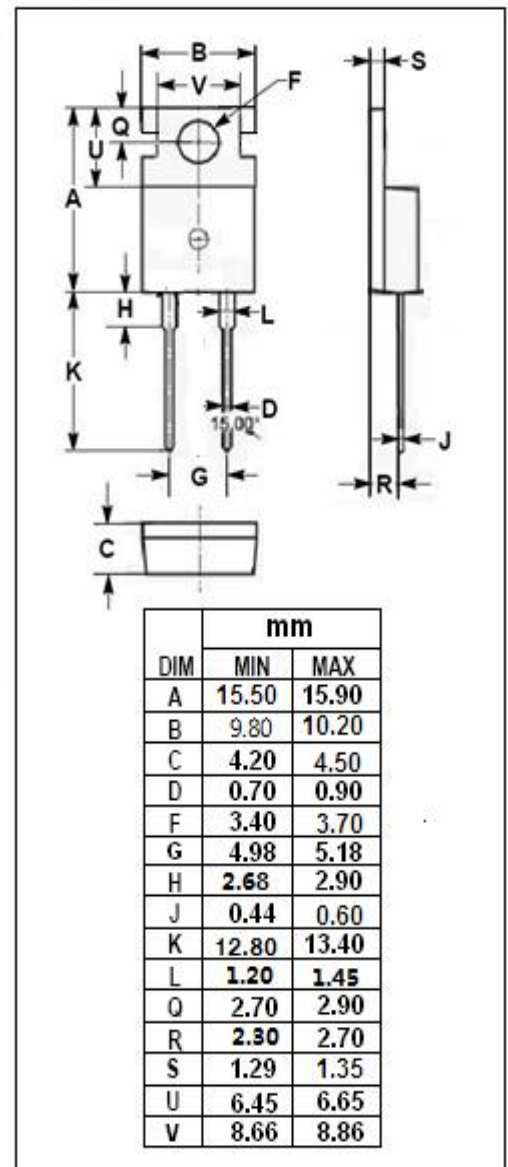
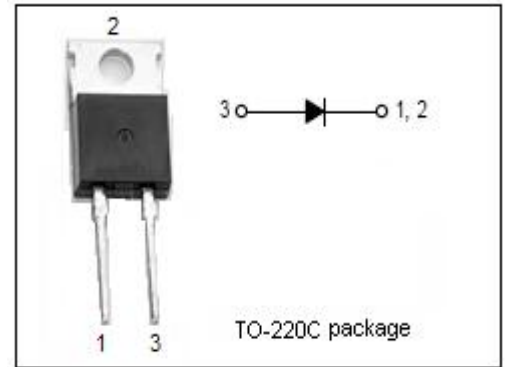
- With TO-220 packaging
- Ultrafast recovery times
- Low leakage current;low losses
- Soft recovery characteristics
- High reliability systems
- Low noise switching
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose
- AC/DC SMPS 70W to 400W

ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
IF(AV)	Average Rectified Forward Current @T <sub>c</sub> =157°C	15	A
IFSM	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions;One shot )	200	A
P <sub>D</sub>	Maximum Power Dissipation	100	W
T <sub>J</sub>	Junction Temperature	-65~175	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal Resistance, Junction to Case	1.4	$^{\circ}\text{C}/\text{W}$

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	$I_F=15\text{A}; T_j=25^{\circ}\text{C}$ $I_F=15\text{A}; T_j=150^{\circ}\text{C}$	1.07 0.91	V
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_j=150^{\circ}\text{C}$	15 100	$\mu\text{A}$
$t_{rr}$	Maximum Reverse Recovery Time	$I_F=1\text{A}; di_F/dt=100\text{A}/\mu\text{s}; V_R=30\text{V}$	110	ns