

Ultra fast Rectifier

ETL1506-M3

FEATURES

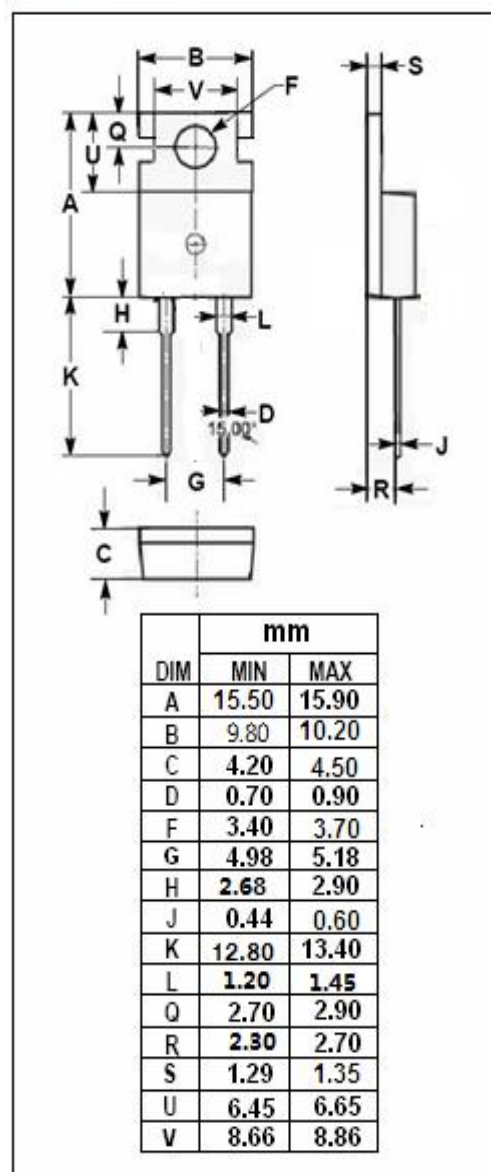
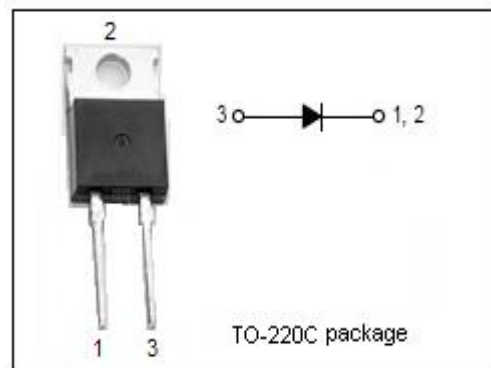
- With TO-220 packaging
- Ultrafast recovery times
- Low leakage current;low losses
- Soft recovery characteristics
- High reliability systems
- Low noise switching
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

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

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 @ $T_c=157^{\circ}\text{C}$	15	A
IFSM	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions;One shot)	200	A
P_D	Maximum Power Dissipation	100	W
T_J	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.4	°C/W

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μ 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	μ 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

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