

Ultra fast Rectifier
ER2004FCT
FEATURES

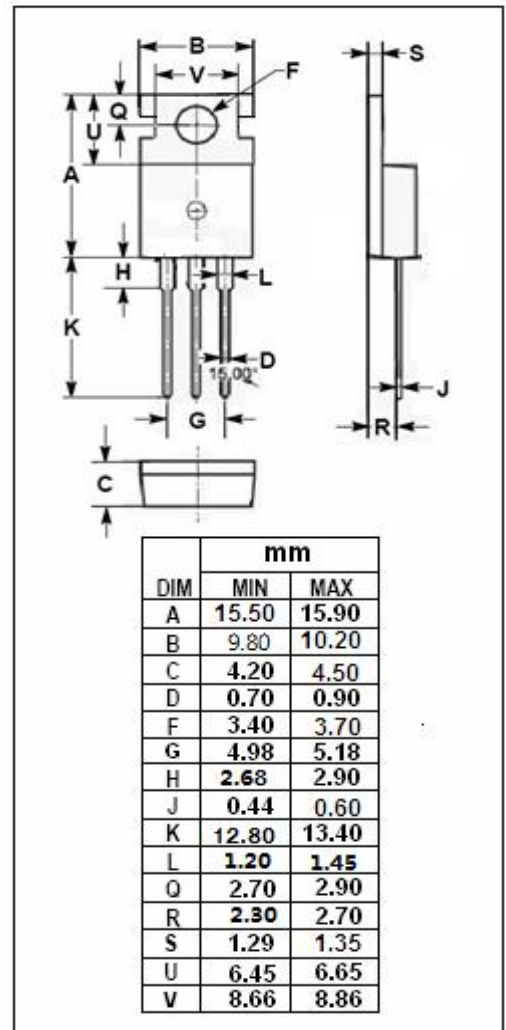
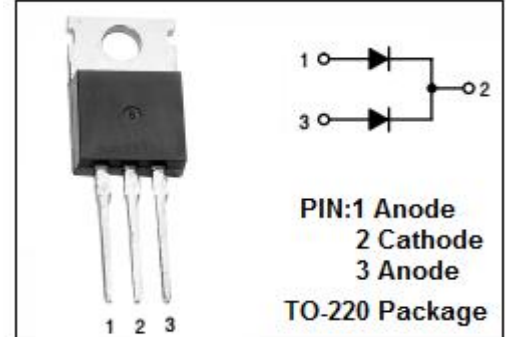
- With TO-220 packaging
- High junction temperature capability
- Low forward voltage, high current capability
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	400	V
I _{F(AV)}	Average Rectified Forward Current @T _c =110°C	20	A
I _{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions)	150	A
T _J	Junction Temperature	-40~150	°C
T _{stg}	Storage Temperature Range	-40~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=10A$	1.3	V
I_R	Maximum Instantaneous Reverse Current	$V_R=$ rated V_{RRM} ; @ $T_j=25^{\circ}C$ $T_j=100^{\circ}C$	1 500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.1A; I_R=0.1A$	50	ns

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