

Ultrafast Rectifier
C3D08060A
FEATURES

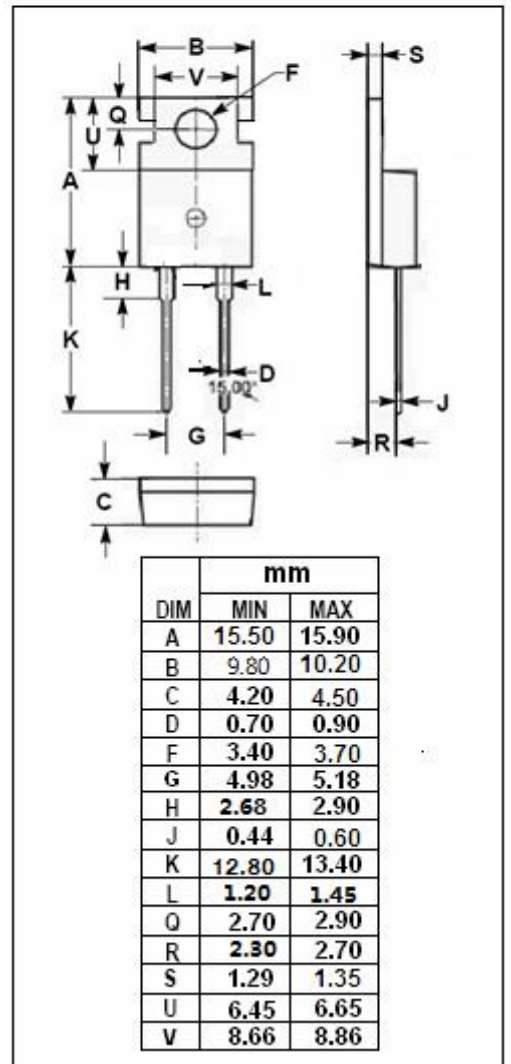
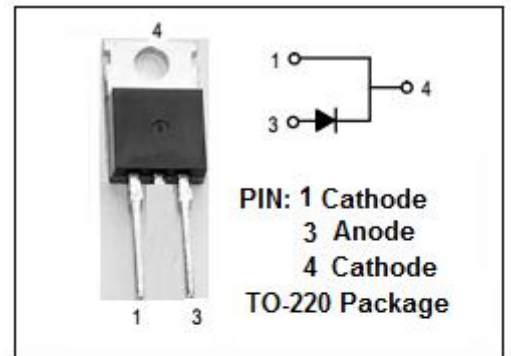
- Ultrafast with soft recovery
- Operating temperature
- Reverse voltage
- Avalanche energy rated
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _R RM V _R WM V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	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	75	W
T _J	Junction Temperature	-55~175	°C
T _{stg}	Storage Temperature Range	-55~175	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F^*}	Maximum Instantaneous Forward Voltage	$I_F=8A ; T_j=25^{\circ}C$ $I_F= 8A ; T_j=150^{\circ}C$	1.5 1.2	V
I_R	Maximum Instantaneous Reverse Current	$V_R= V_{RWM}; T_j=150^{\circ}C$ $V_R= V_{RWM}$	500 100	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1A; di/dt = 200A/\mu s$ $I_F = 8A; di/dt = 200A/\mu s$	60 70	ns

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

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