

Ultrafast Rectifier

DSEI8-06A

FEATURES

- Ultrafast Recovery Time
- Very short recovery time
- Extremely low switching losses
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

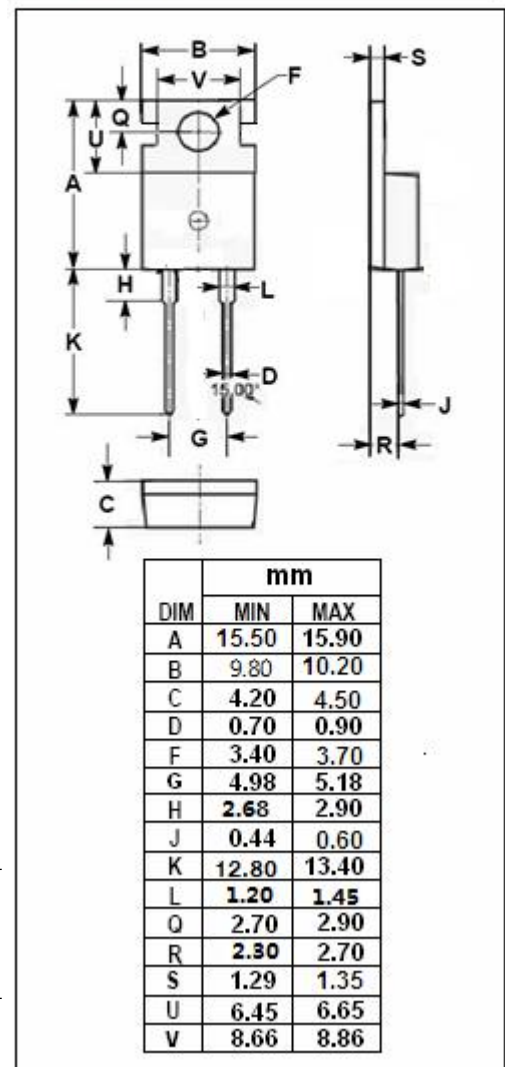
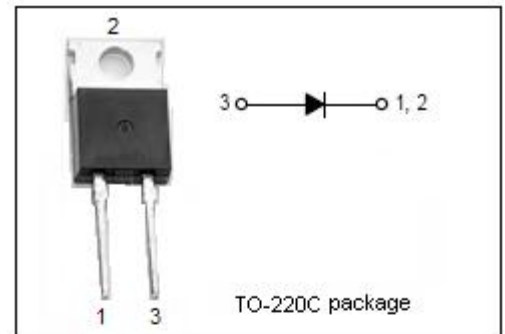
- Designed for use in switching power supplies and other power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} 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)	110	A
T_J	Junction Temperature	-40~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-40~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}\text{C/W}$



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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}; T_j=25^{\circ}\text{C}$ $I_F=8\text{A}; T_j=150^{\circ}\text{C}$	1.5 1.3	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8*V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8*V_{RWM}; T_j=125^{\circ}\text{C}$	20 10 1500	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}$	50	ns

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