

Ultrafast Rectifier
DSEC60-03AR
FEATURES

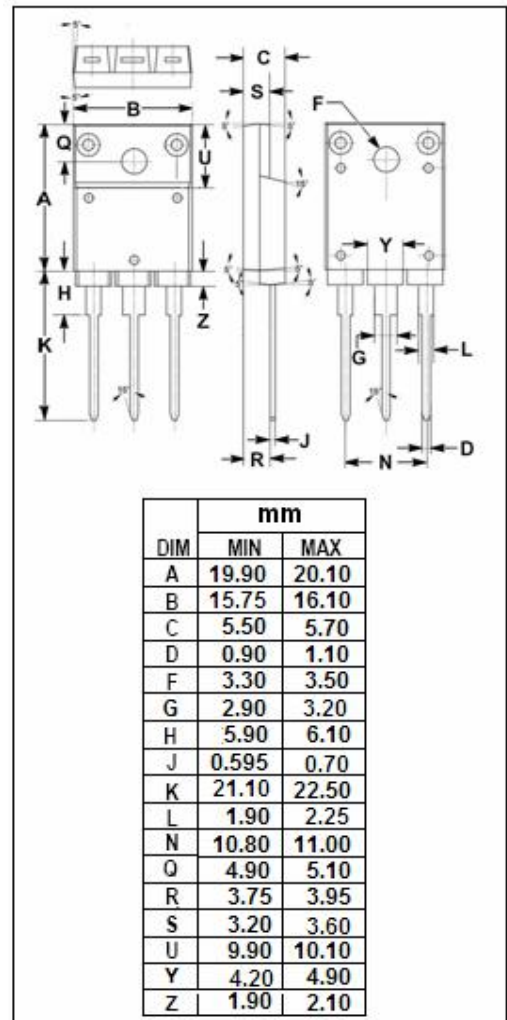
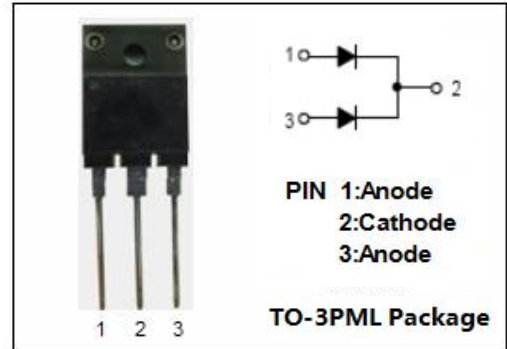
- Popular TO-3PF package
- Low forward drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

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	300	V
I _F (AV)	Average Rectified Forward Current	30	A
I _{FRM}	Peak Rectified forward current	70	A
I _{FSM}	Non-repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	300	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.1	$^{\circ}C/W$

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	$I_F=30A; T_j=25^{\circ}C$ $I_F=30A; T_j=150^{\circ}C$	1.25 1.59	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM};$ $V_R=V_{RWM}; T_j=150^{\circ}C$	10 1000	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5A$	30	ns

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