

Schottky Barrier Rectifier

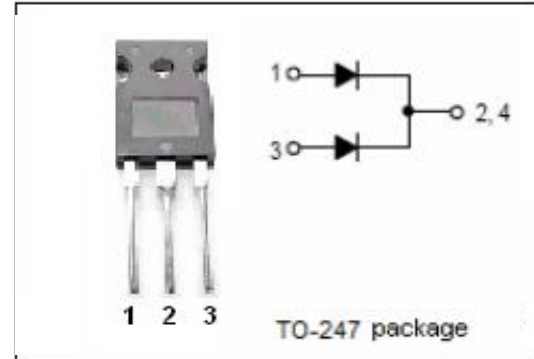
STPS30150CW

FEATURES

- With TO-247 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

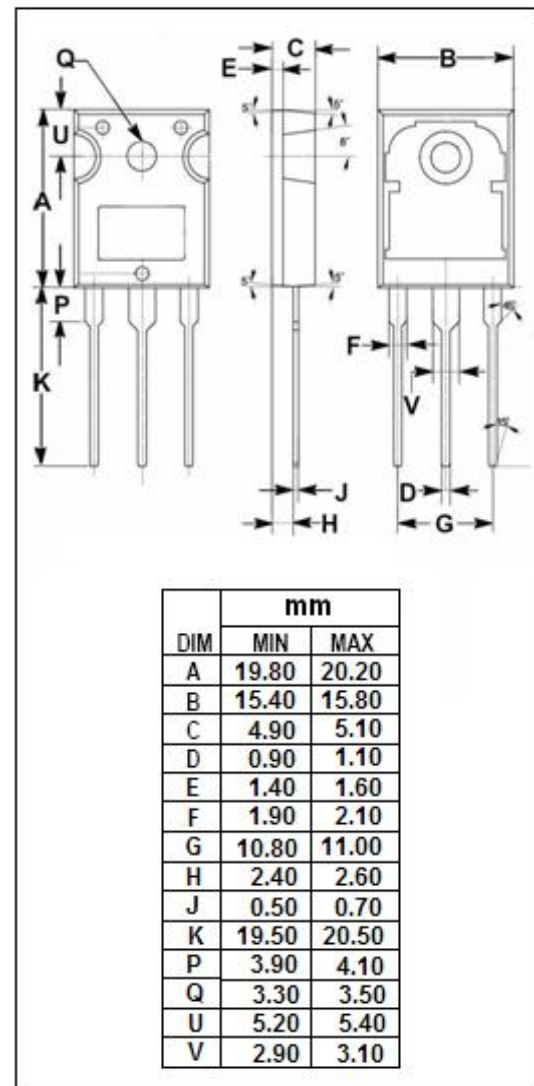
APPLICATIONS

- 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	150	V
I _{F(AV)}	Average Rectified Forward Current @T _c =110°C	15	A
I _{FSM}	RMS Forward Current	30	A
I _{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions)	220	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~175	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=15A ; T_C=25^{\circ}C$ $I_F=15A ; T_C=125^{\circ}C$ $I_F=30A ; T_C=25^{\circ}C$ $I_F=30A ; T_C=125^{\circ}C$	0.92 0.75 1.00 0.86	V
I_R	Maximum Instantaneous Reverse Current	$V_R=$ rated $V_{RRM}; T_j=25^{\circ}C$ $V_R=$ rated $V_{RRM}; T_j=125^{\circ}C$	6.8 8.0	μ A mA

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