

## Schottky Barrier Rectifier

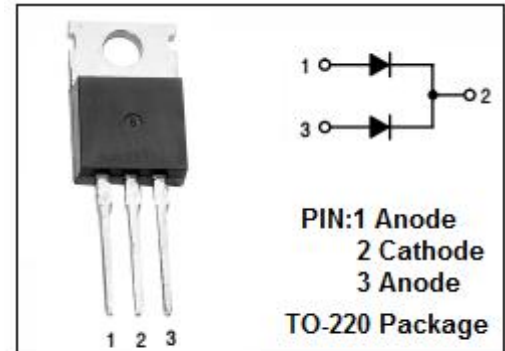
## STPS30150CT

### 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

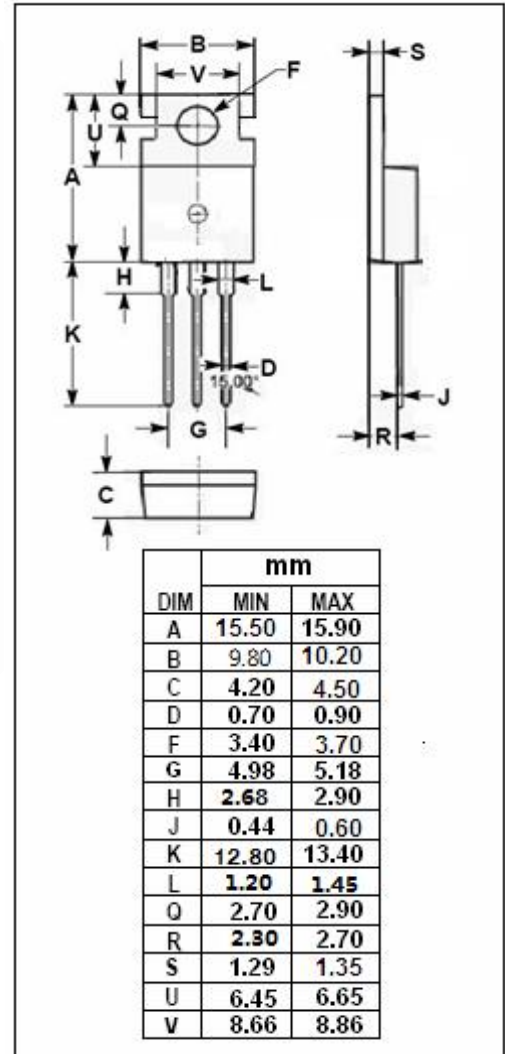
### APPLICATIONS

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



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

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 @ $T_c=110^\circ\text{C}$	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	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~175	$^\circ\text{C}$



**Schottky Barrier Rectifier****STPS30150CT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.6	$^{\circ}C/W$

**ELECTRICAL CHARACTERISTICS** (Pulse Test: Pulse Width=300  $\mu$  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	$V_R = \text{rated } V_{RRM} ; T_j = 25^{\circ}C$ $V_R = \text{rated } V_{RRM} ; T_j = 125^{\circ}C$	6.8 8.0	$\mu$ A mA