

# Schottky Barrier Rectifier

# STPS30L120CT

## FEATURES

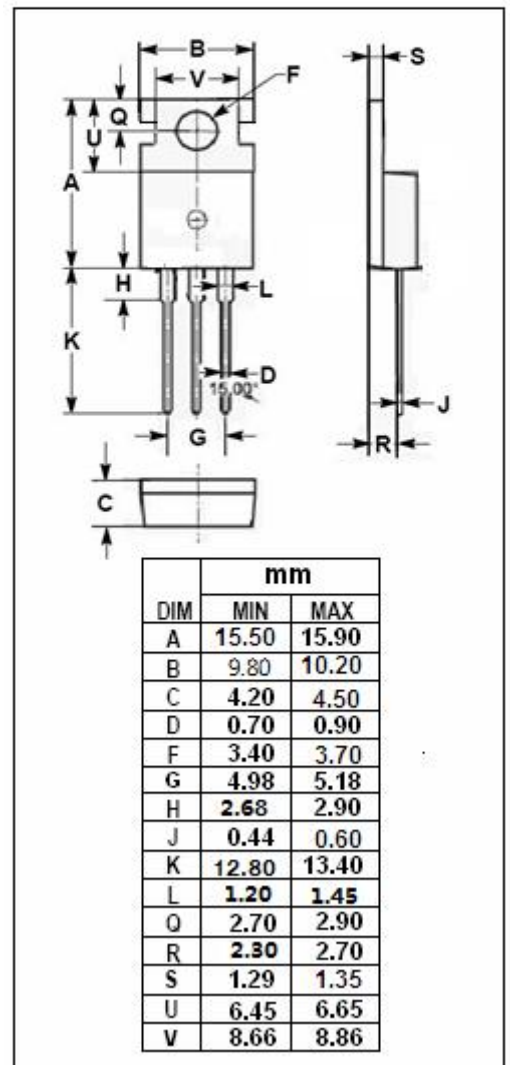
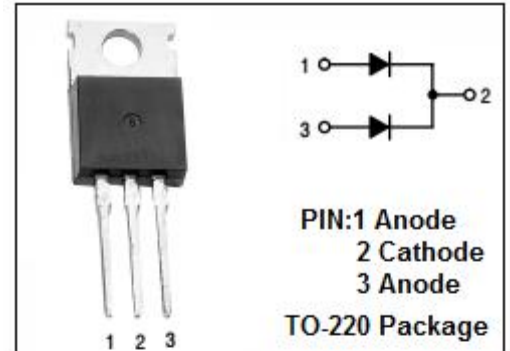
- High junction temperature capability
- Low Power Loss,high Efficiency
- Low forward voltage drop current
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Be suited for high frequency switch mode power supplies.

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	120	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	30	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	220	A
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~175	°C



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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case per diode total	1.3 0.7	$^{\circ}C/W$

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F$	Maximum Instantaneous Forward Voltage	$I_F= 5A ; T_c= 25^{\circ}C$	0.675	V
		$I_F= 5A ; T_c= 125^{\circ}C$	0.57	
		$I_F=1.5A ; T_c= 25^{\circ}C$	0.88	
		$I_F= 15A ; T_c= 125^{\circ}C$	0.71	
		$I_F= 30A ; T_c= 25^{\circ}C$	1.08	
		$I_F= 30A ; T_c= 125^{\circ}C$	0.84	
$I_R$	Maximum Instantaneous Reverse Current	$V_R= V_{RWM}; T_c= 25^{\circ}C$	0.2	mA
		$V_R= V_{RWM}; T_c= 125^{\circ}C$	35	

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