

Schottky Barrier Rectifier

STPS30L120CT

FEATURES

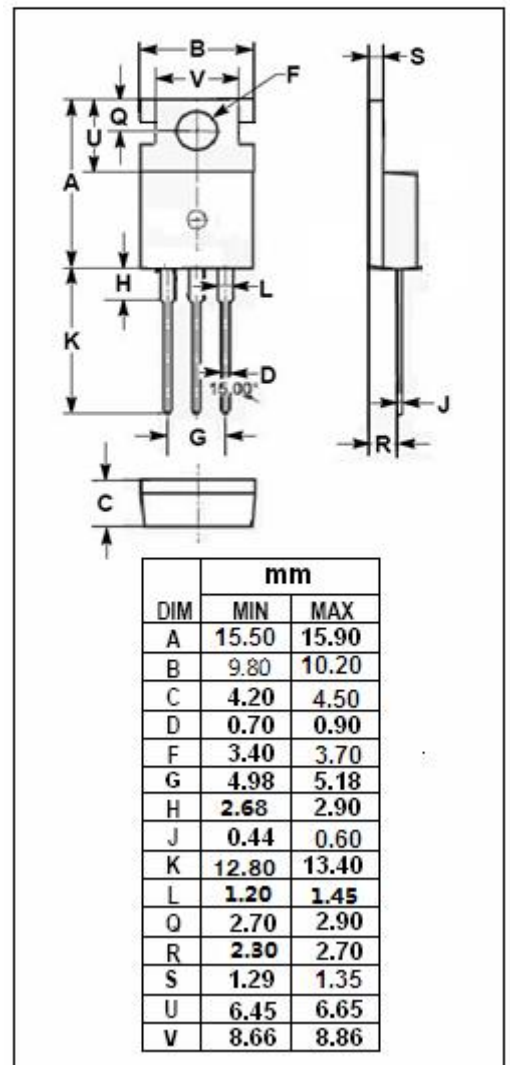
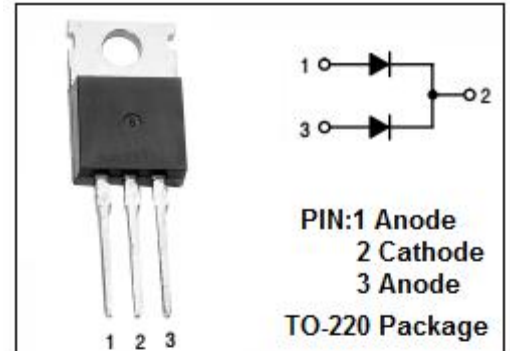
- High junction temperature capability
- Low Power Loss,high Efficiency
- Low forward voltage drop current
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Be suited for high frequency switch mode power supplies.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	120	V
I _{F(AV)}	Average Rectified Forward Current	30	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	220	A
T _J	Junction Temperature	150	°C
T _{stg}	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	°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	$I_F = 5A ; T_c = 25^\circ C$	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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