

High Voltage Power Schottky Rectifier

STPS20100CT

FEATURES

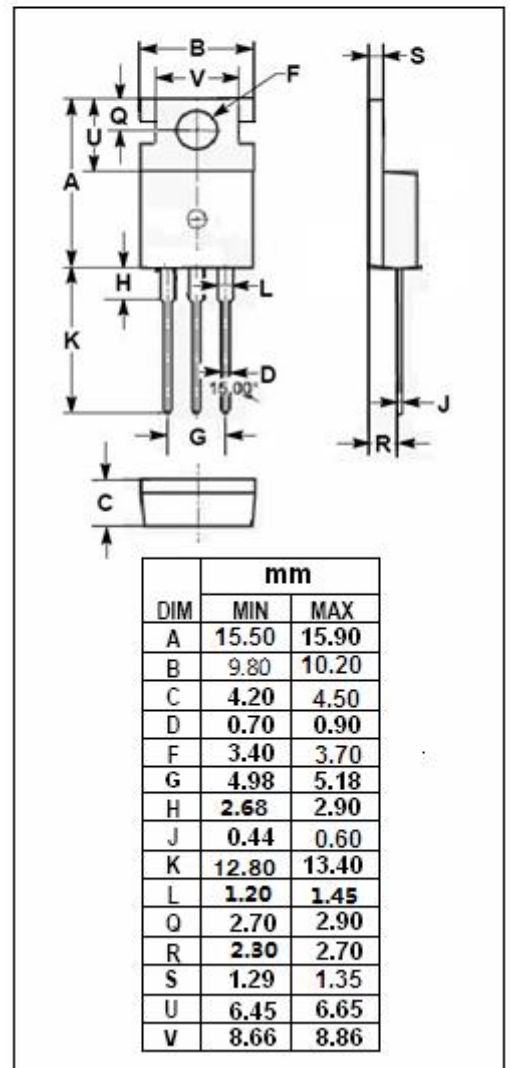
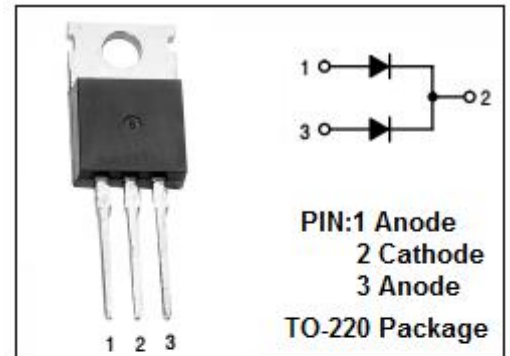
- Plastic material used carriers Underwriter Laboratory
- Metal silicon junction, majority carrier conduction
- Low Power Loss,high Efficiency
- Guard ring for overvoltage protection
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For use in low voltage,high frequency inverters,free wheeling and polarity protection applications.

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	100	V
I _{F(RMS)}	RMS Forward current	30	A
I _{F(AV)}	Average Rectified Forward Current Tc=110°C VR=60V	10 20	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions tp=10 ms sinusoidal	200	A
T _J	Junction Temperature	175	°C
T _{stg}	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V _R)	1000	V/μs



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	per diode	1.6
		Total	0.9
R _{th(c)}	Coupling	0.15	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 20A ; T _c = 25°C	0.95	V
		I _F =20A ; T _c =125°C	0.70	
I _R	Maximum Instantaneous Reverse Current	V _R = V _{RWM} ; T _c = 25°C	0.15	mA
		V _R = V _{RWM} ; T _c = 125°C	100	

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