

# Schottky Barrier Rectifier

## STPS20M100SG-TR

### FEATURES

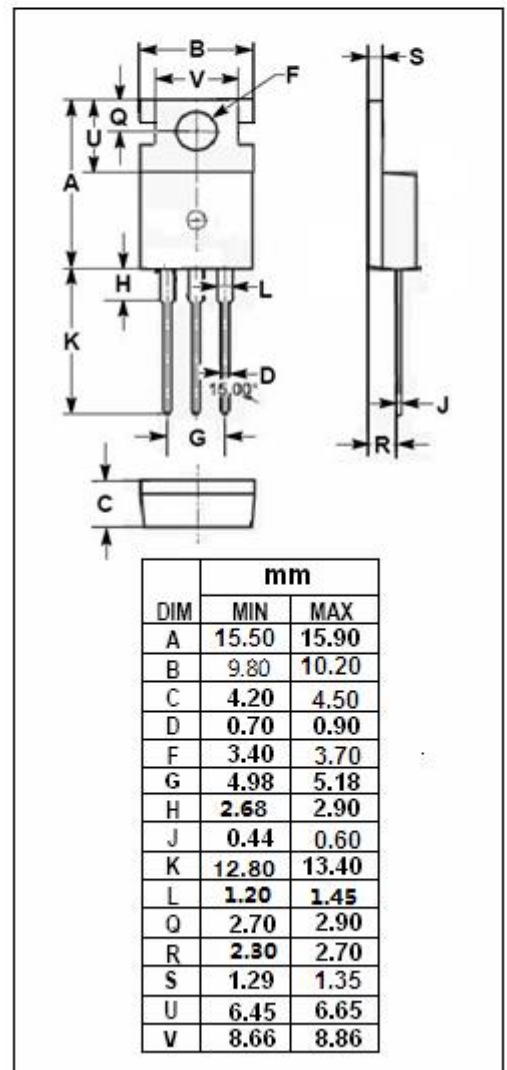
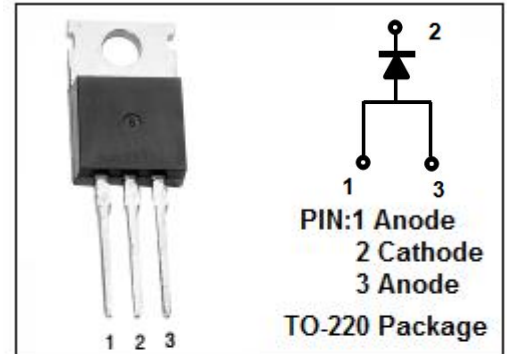
- Schottky Barrier Chip
- Low forward voltage drop meaning very small conduction losses
- Reverse voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Switching diode
- SMPS
- DC/DC converter

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{RRM}$ $V_{RWM}$ $V_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	20	A
$I_{FSM}$	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	350	A
$P_D$	Maximum power dissipation	105	W
$T_J$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-40~150	$^{\circ}\text{C}$



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## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.2	°C/W

ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ ) (Pulse Test: Pulse Width=300  $\mu$  s, Duty Cycle  $\leq 2\%$ )

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
$V_F^*$	Maximum Instantaneous Forward Voltage	$I_F=20\text{A}; T_j=25^{\circ}\text{C}$ $I_F=20\text{A}; T_j=125^{\circ}\text{C}$	900 800	mV
$I_R$	Maximum Instantaneous Reverse Current	$V_R=V_{RWM};$ $V_R=V_{RWM}; T_j=125^{\circ}\text{C}$	0.04 40	mA

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