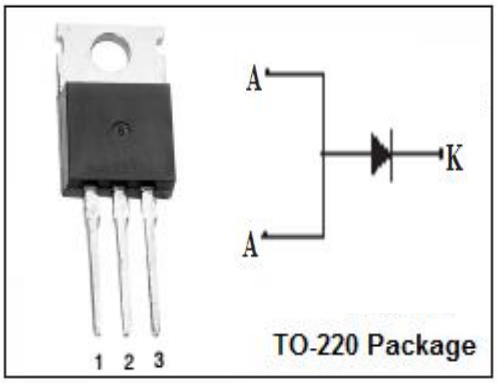
Schottky Barrier Rectifier

STPS30M60ST



FEATURES

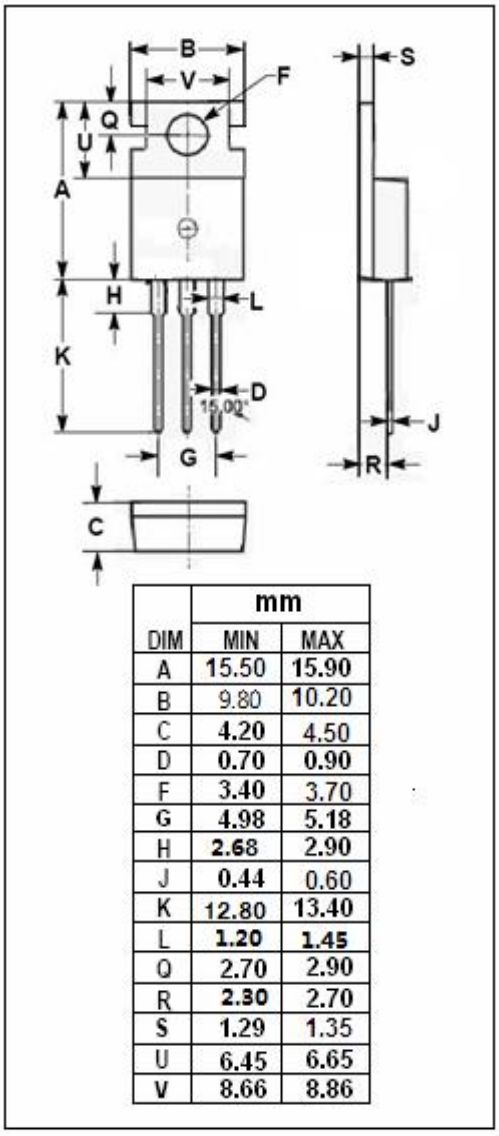
- With TO-220 packaging
- Low leakage current, low power loss, high efficiency
- High frequency operation
- High current capability
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters
- Freewheeling diodes
- Reverse battery protection
- Polarity protection applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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 @Tc=125℃	30	A
$I_{F(RMS)}$	RMS Forward Current	60	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	300	A
T_J	Junction Temperature	-65~150	℃
T_{stg}	Storage Temperature Range	-65~175	℃



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300μs,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F*}	Maximum Instantaneous Forward Voltage	I_F=15A ;Tj=25℃ I_F=15A ;Tj=125℃ I_F=30A ;Tj=25℃ I_F=30A ;Tj=125℃	0.66 0.56 0.80 0.65	V
I_{R*}	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$ V_R= $V_{RWM;}$Tj=25℃	0.175 50	mA

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