

Schottky Barrier Rectifier

ST30100

FEATURES

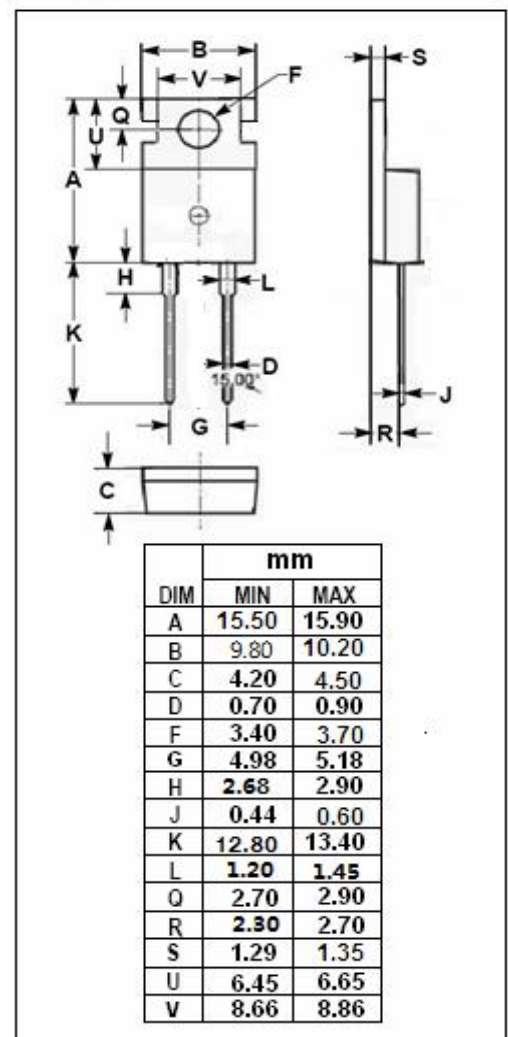
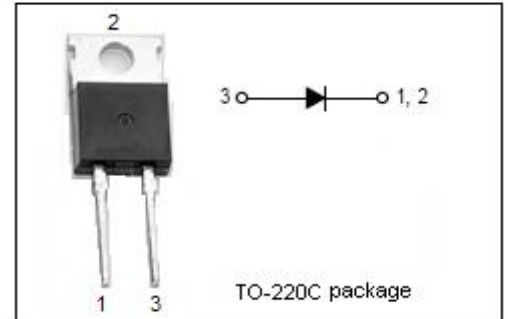
- Center tap configuration
- 150°C Operating Junction Temperature
- Guaranteed Reverse Avalanche
- Ultralow forward voltage drop
- High frequency operation
- Low Stored Charge Majority Carrier Conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RMS} V _R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	100	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 106°C	30	A
I _{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions T _C = 150°C	300	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.0	°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 = 30A ; T _c = 25°C I _F = 30A ; T _c = 125°C	0.75 0.70	V
I _R	Maximum Instantaneous Reverse Current (Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C)	V _R = rated V _{RRM} ; T _c = 25°C V _R = rated V _{RRM} ; T _c = 125°C	1 75	mA

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