

Schottky Barrier Rectifier

STPS15L25D

FEATURES

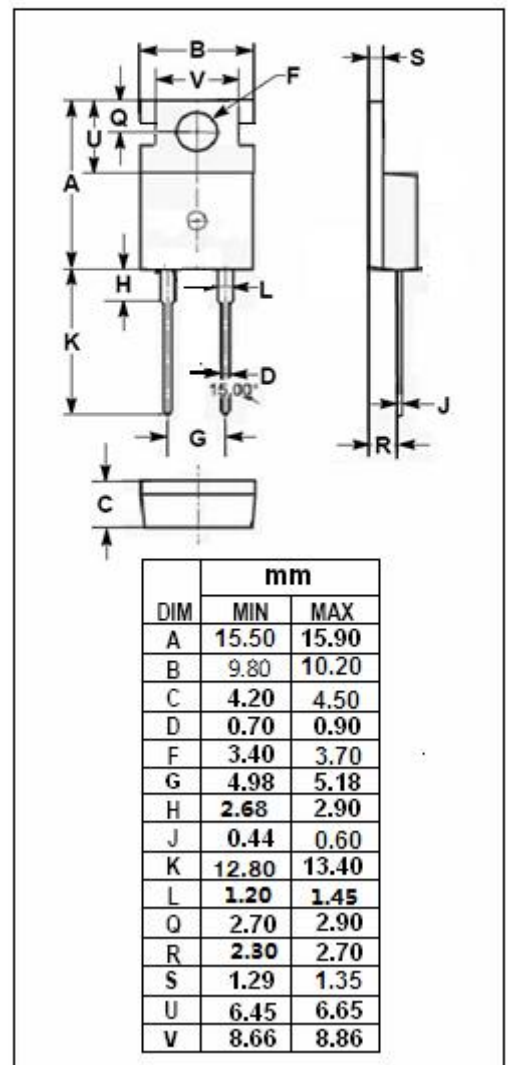
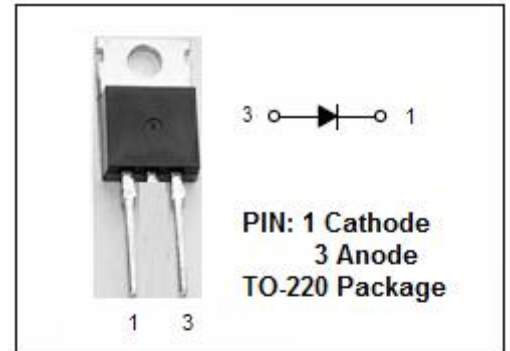
- Low forward voltage
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	25	V
IF(AV)	Average Rectified Forward Current (Rated VR) TC= 135°C	15	A
IFSM	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	250	A
TJ	Junction Temperature	-65~150	°C
Tstg	Storage Temperature Range	-65~150	°C
dv/dt	Voltage Rate of Change (Rated VR)	10,000	V/ μ s



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15A$; $T_C = 25^\circ C$ $I_F = 15A$; $T_C = 125^\circ C$	0.46 0.35	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^\circ C$ Rated DC Voltage, $T_C = 125^\circ C$	1.3 450	mA

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