

Ultra-fast Recovery Rectifier
STPS20170CG
FEATURES

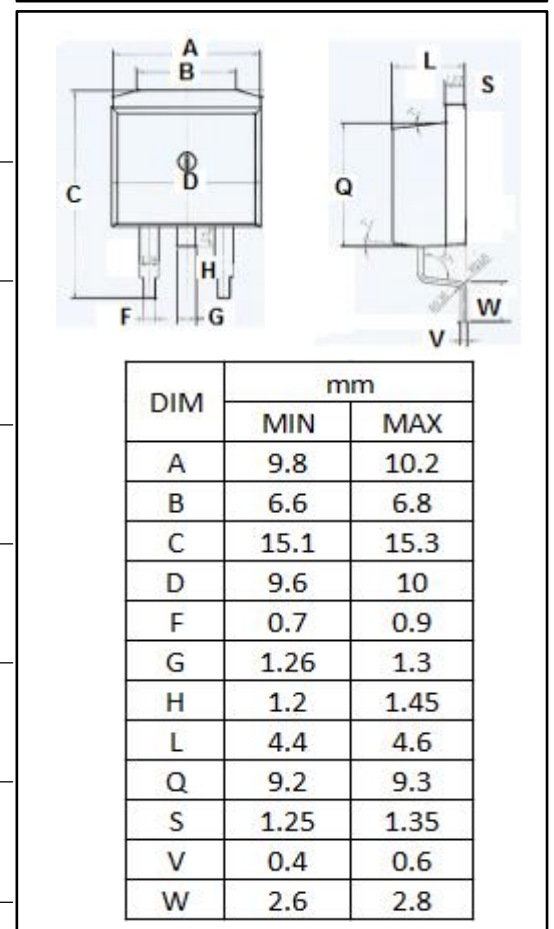
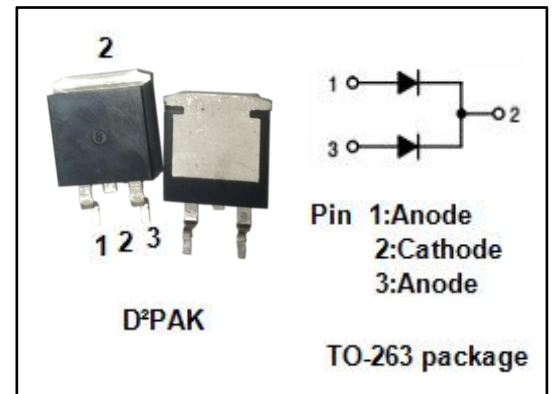
- With TO-263 Package
- Ultra-fast switching
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Anti-parallel diode for high frequency switching devices
- Uninterruptible Power Supplies (UPS)
- Free wheeling diode

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM}	repetitive reverse blocking voltage	170	V
I _{F(AV)}	Average Forward Current $\delta = 0.5$ (T _C = 155°C)	20	A
I _{FSM}	Surge non repetitive forward current (t _p = 10ms sinusoidal)	180	A
T _J	Junction Temperature	175	°C
T _{stg}	Storage Temperature Range	-65~175	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.3	°C/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F *	Maximum Instantaneous Forward Voltage	I _F = 10A ; T _j =25°C I _F = 20A ; T _j =25°C	0.9 0.99	V
I _R *	Maximum Instantaneous Reverse Current	V _R = 170V; T _j =25°C	15	uA

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