

Ultrafast Recovery Rectifier
STTH1512GY
FEATURES

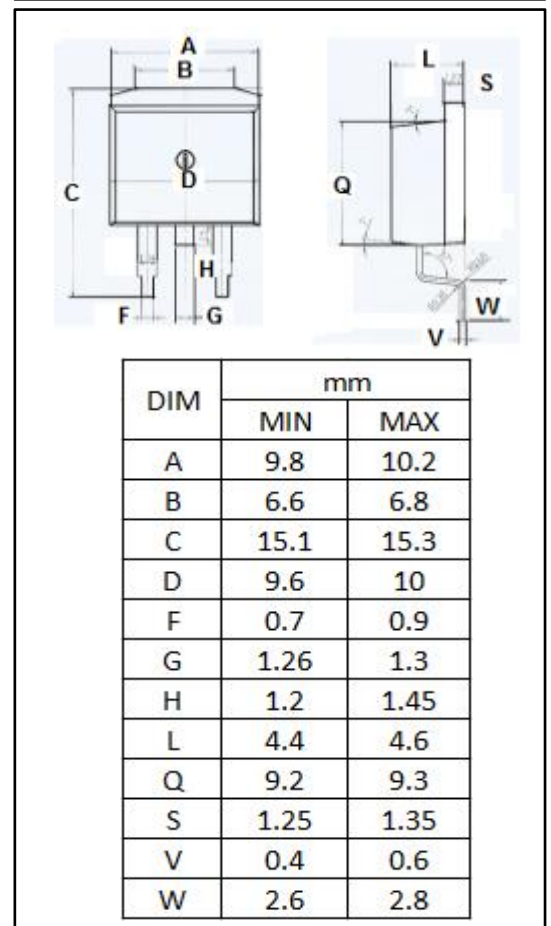
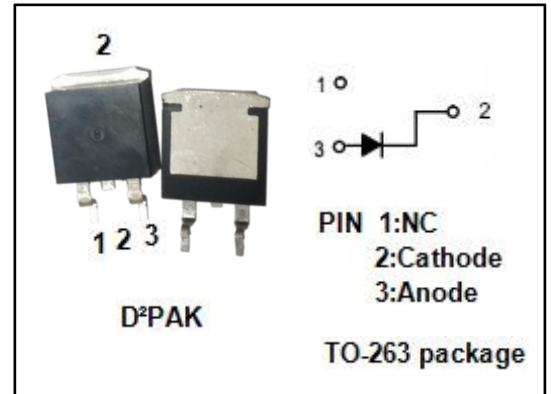
- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175°C Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supplies
- Power switching circuits
- General purpose

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R)	15	A
I _{F(RMS)}	RMS forward current	50	A
T _J	Junction Temperature	-65~175	°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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F^*}	Maximum Instantaneous Forward Voltage	$I_F = 15A, T_c = 25^\circ C$	2.1	V
		$I_F = 15A, T_c = 150^\circ C$	1.9	
I_R	Maximum Instantaneous Reverse Current	$V_{RRM} = 1200V, T_c = 25^\circ C$	15	μA
		$V_{RRM} = 1200V, T_c = 150^\circ C$	100	
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1A, V_R = 30V, dI_F/dt = -100A/\mu s, T_j = 25^\circ C$	75	ns

*: Pulse test, Pulse width=300us, duty cycle≤2%

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