

Ultrafast Rectifier

STTH1602CG

FEATURES

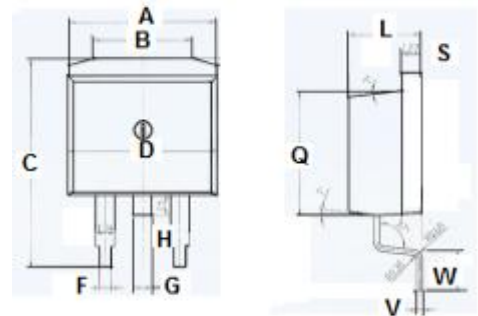
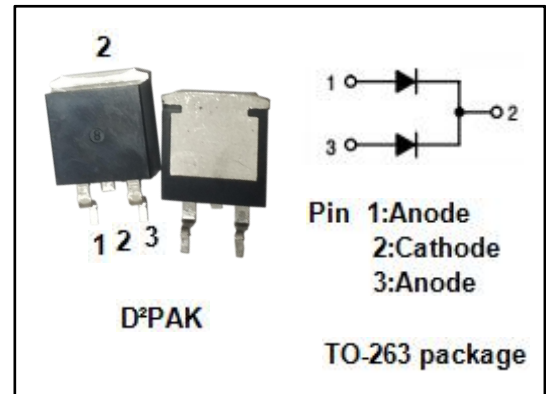
- Low forward and reverse recovery times
- Low leakage current
- High junction temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- The STTH1602CG is designed for use in switching power Supplies, inverters and as free wheeling diodes.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current (Per Leg) (Total)	8 16	A
I_{FSM}	Nonrepetitive Peak Surge Current	80	A
T_J	Junction Temperature	-65~175	°C
T_{stg}	Storage Temperature Range	-65~175	°C



DIM	mm	
	MIN	MAX
A	9.8	10.2
B	6.6	6.8
C	15.1	15.3
D	9.6	10
F	0.7	0.9
G	1.26	1.3
H	1.2	1.45
L	4.4	4.6
Q	9.2	9.3
S	1.25	1.35
V	0.4	0.6
W	2.6	2.8

Fast Recovery Rectifier

STTH1602CG

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	°C/W

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=8\text{A}; T_j=25^{\circ}\text{C}$	1.1	V
		$I_F=8\text{A}; T_j=150^{\circ}\text{C}$	1.25	
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$	60	μ A
		$V_R=V_{RWM}; T_j=150^{\circ}\text{C}$	60	
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}; di/dt = 50\text{A}/\mu\text{s}$	26	ns

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