

**Ultra fast Rectifier**
**STTH16L06CG**
**FEATURES**

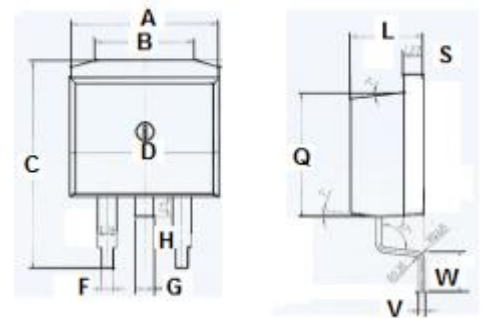
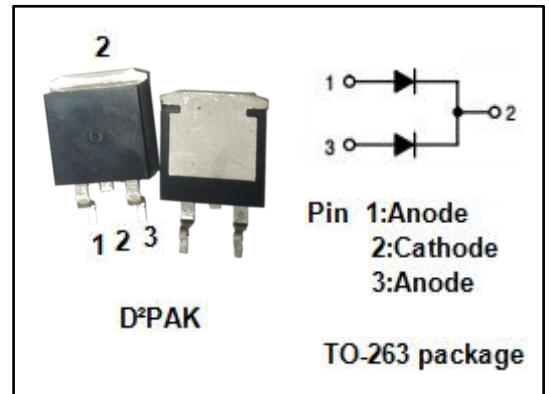
- With D<sup>2</sup>PAK packaging
- High performance fast recovery diode
- Low loss and soft recovery
- High current capability
- Low reverse leakage current
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Switching power supply
- Power switching circuits
- General purpose

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
I <sub>F(AV)</sub>	Average Rectified Forward Current @T <sub>c</sub> =80°C	16	A
I <sub>FSM</sub>	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 50Hz)	90	A
T <sub>J</sub>	Junction Temperature	-65~175	°C
T <sub>stg</sub>	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

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**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	2.5	°C/W

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C) (Pulse Test: Pulse Width=300 μ s, Duty Cycle ≤ 2%)**

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>F</sub>	Maximum Instantaneous Forward Voltage	I <sub>F</sub> =8A; T <sub>c</sub> =25°C I <sub>F</sub> =8A; T <sub>c</sub> =150°C I <sub>F</sub> =16A; T <sub>c</sub> =25°C I <sub>F</sub> =16A; T <sub>c</sub> =150°C	1.80 1.35 2.08 1.64	V
I <sub>R</sub>	Maximum Instantaneous Reverse Current	V <sub>R</sub> = V <sub>RWM</sub> ; T <sub>j</sub> =25°C V <sub>R</sub> = V <sub>RWM</sub> ; T <sub>j</sub> =150°C	8 240	μ A
t <sub>rr</sub>	Maximum Reverse Recovery Time	I <sub>F</sub> =0.5A; I <sub>R</sub> =1A; I <sub>rr</sub> =0.25A	35	ns

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