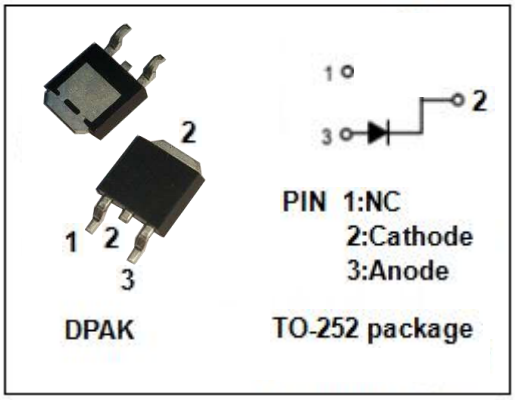
Ultrafast Rectifier

STTH5R06B

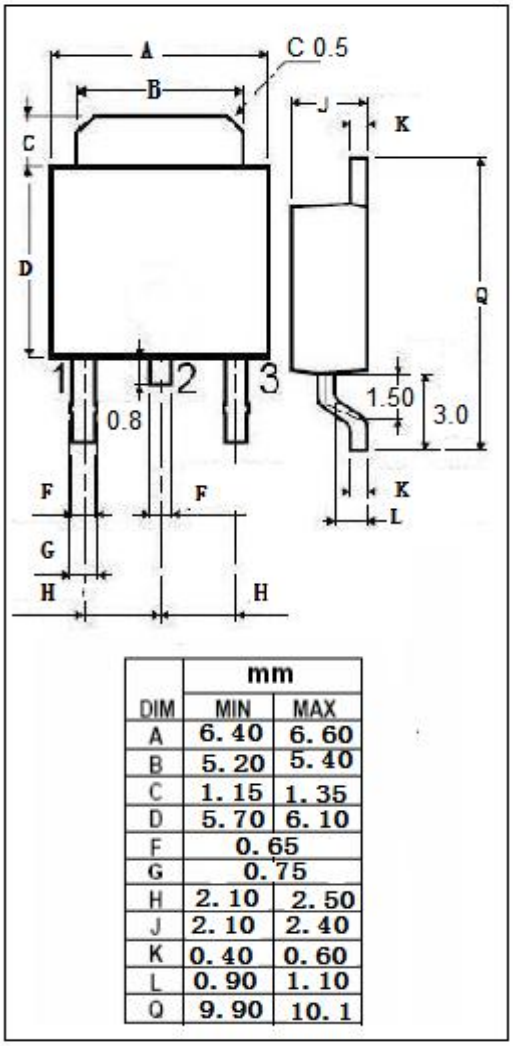


FEATURES

- Ultrafast switching
- Low reverse recovery current
- Reduces switching losses
- Low thermal resistanc
- With DPAK package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- The STTH5R06B is designed for use in switching power Supplies,inverters and as free wheeling diodes.



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	600	V
V_{RMS}	Maximum RMS voltage	420	V
$I_{F(AV)}$	Average Rectified Forward Current	5.0	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	50	A
T_J	Junction Temperature	-65~175	℃
T_{stg}	Storage Temperature Range	-65~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.0	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F*}	Maximum Instantaneous Forward Voltage	I_F= 5.0A ;Tj=25℃	2.9	V
I_{R*}	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tj=25℃ V_R= $V_{RWM;}$Tj=125℃	20 250	μA
t_{rr}	Maximum Reverse Recovery Time	I_F =0.5A;I_R =1.0A;I_{rr} =0.25A	35	ns

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

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