

Ultra fast Rectifier

STTH2003CG

FEATURES

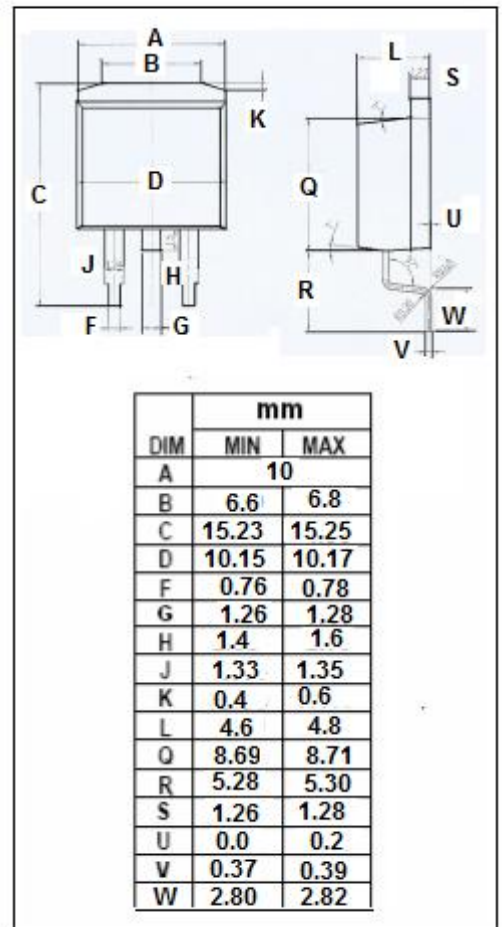
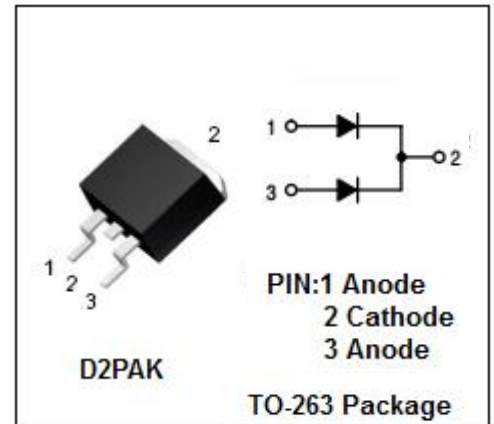
- With TO-263(DPAK) packaging
- Low forward voltage drop
- Super high speed switching
- High reliability by planer design
- High surge current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- High speed power switching

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|--------------------|---|---------|------|
| VRRM VRWM VR | Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | 300 | V |
| IF(AV) | Average Rectified Forward Current @T _c =140°C; Square Wave; Duty=1/2 | 20 | A |
| IFSM | Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions | 110 | A |
| TJ | Junction Temperature | -65~175 | °C |
| Tstg | Storage Temperature Range | -65~175 | °C |



Ultra fast Rectifier**STTH2003CG****THERMAL CHARACTERISTICS**

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--------------------------------------|-----|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 2.5 | °C/W |

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

| SYMBOL | PARAMETER | CONDITIONS | MAX | UNIT |
|-----------------|---------------------------------------|---|-------------|------|
| V _F | Maximum Instantaneous Forward Voltage | I _F =10A ;T _c =25°C I _F =10A ;T _c =125°C | 1.25 1.0 | V |
| I _R | Maximum Instantaneous Reverse Current | V _R = V _{RWM} T _c =25°C V _R = V _{RWM} T _c =125°C | 20 300 | mA |
| t _{rr} | Maximum Reverse Recovery Time | I _F =1A; dI/dt=-50A/ μ s; V _R =30V | 35 | ns |

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