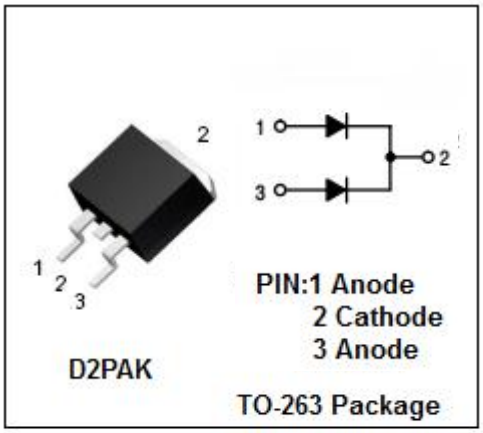
Ultra fast Rectifier STTH2003CG

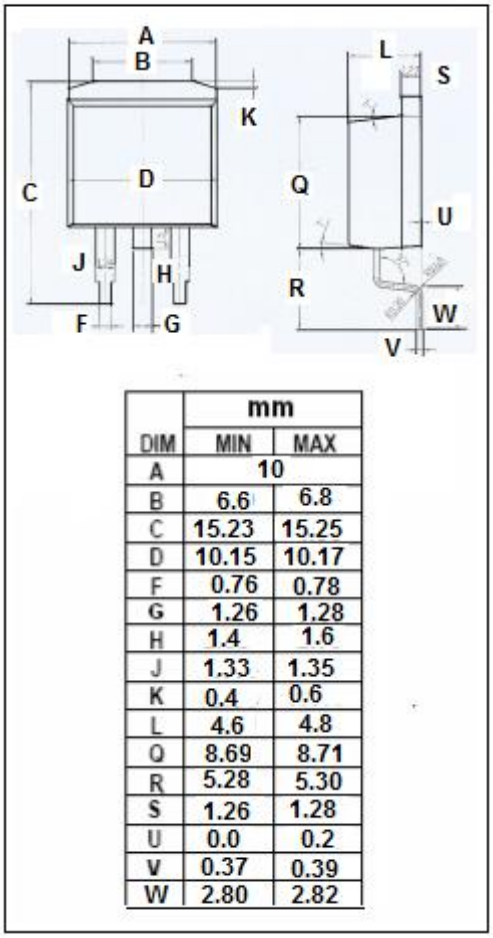


FEATURES

- 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



DIM	mm MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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 @Tc=140℃;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	℃
Tstg	Storage Temperature Range	-65~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.5	℃/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=10A ;Tc=25℃ I_F=10A ;Tc=125℃	1.25 1.0	V
I_R	Maximum Instantaneous Reverse Current	V_R= V_{RWM}Tc=25℃ V_R= V_{RWM}Tc=125℃	20 300	mA
t_{rr}	Maximum Reverse Recovery Time	I_F =1A;dI/dt=-50A/ μs;VR=30V	35	ns

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