

Ultra fast Rectifier
STTH20L03CG
FEATURES

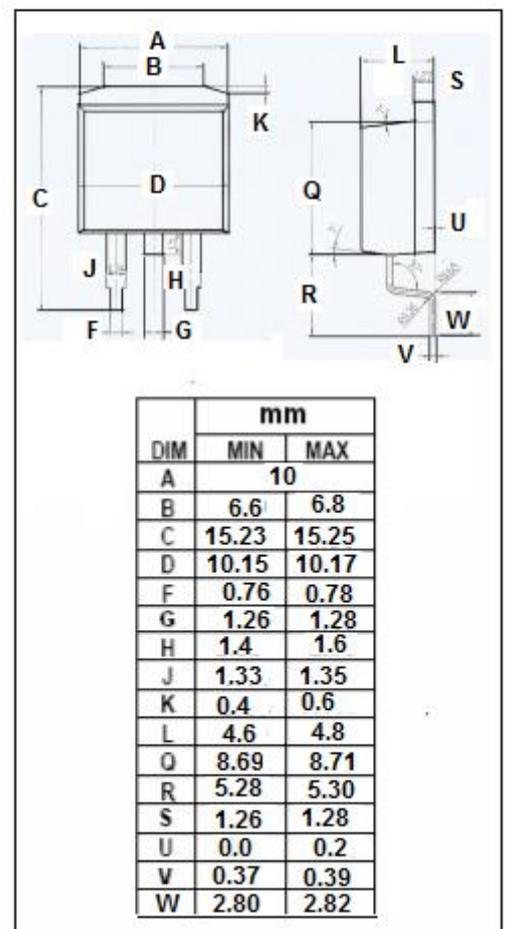
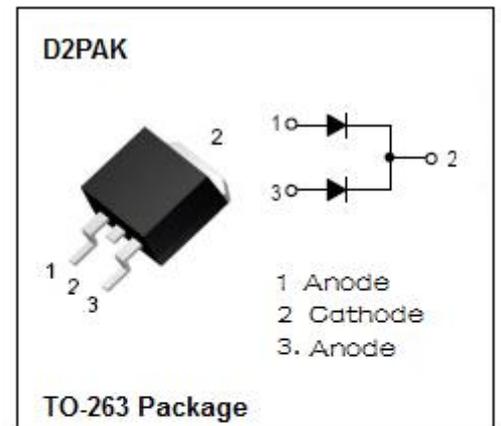
- Ultrafast, soft and noise-free recovery
- Packaged in TO-263(D2PAK)
- Low forward voltage drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT		
VRRM	Peak Repetitive Reverse Voltage	300	V		
VRWM	Working Peak Reverse Voltage				
VR	DC Blocking Voltage	tw=500ns;duty=1/40			
IF(AV)	Average Rectified Forward Current	Tc=155°C	Per diode	10	A
		Tc=150°C	Per device	20	
IF(RMS)	Forward rms current	30	A		
IFSM	Nonrepetitive Peak Surge Current t _p =10ms sinusoidal	150	A		
TJ	Junction Temperature	-40~175	°C		
Tstg	Storage Temperature Range	-65~175	°C		



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	Per diode Total	1.5 1.0	°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	$I_F=10\text{A}; T_j=25^{\circ}\text{C}$ $I_F=10\text{A}; T_j=125^{\circ}\text{C}$	1.2 0.95	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_j=125^{\circ}\text{C}$	10 100	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A}; V_R=30\text{V}; dI_F/dt=-100\text{A}/\mu\text{s}$	35	ns

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