

Ultrafast Rectifier
STTH20L03CT
FEATURES

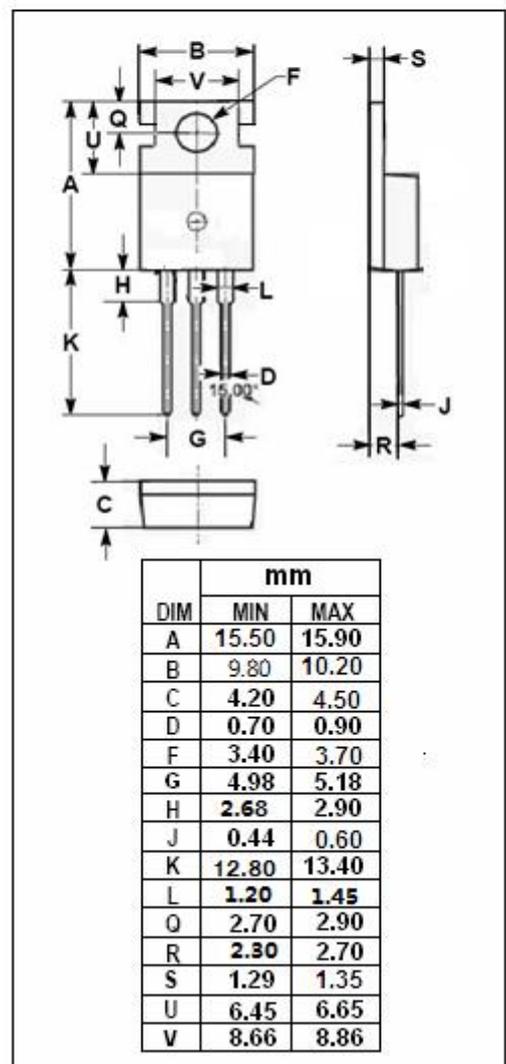
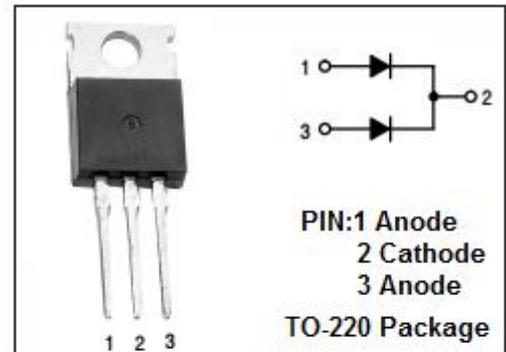
- Guarding for over voltage protection
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _R RM V _R WM V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	300	V
I _F (AV)	Average Rectified Forward Current Per Leg Total device	10 20	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
T _J	Junction Temperature	-40~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C



Fast Recovery Rectifier
STTH20L03CT
THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=10A; T_j=125^{\circ}C$ $I_F=10A; T_j=25^{\circ}C$	0.95 1.2	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=125^{\circ}C$ $V_R=V_{RWM}$	100 10	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=1A;$	35	ns

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