

Ultra fast Rectifier

STTA1206D

FEATURES

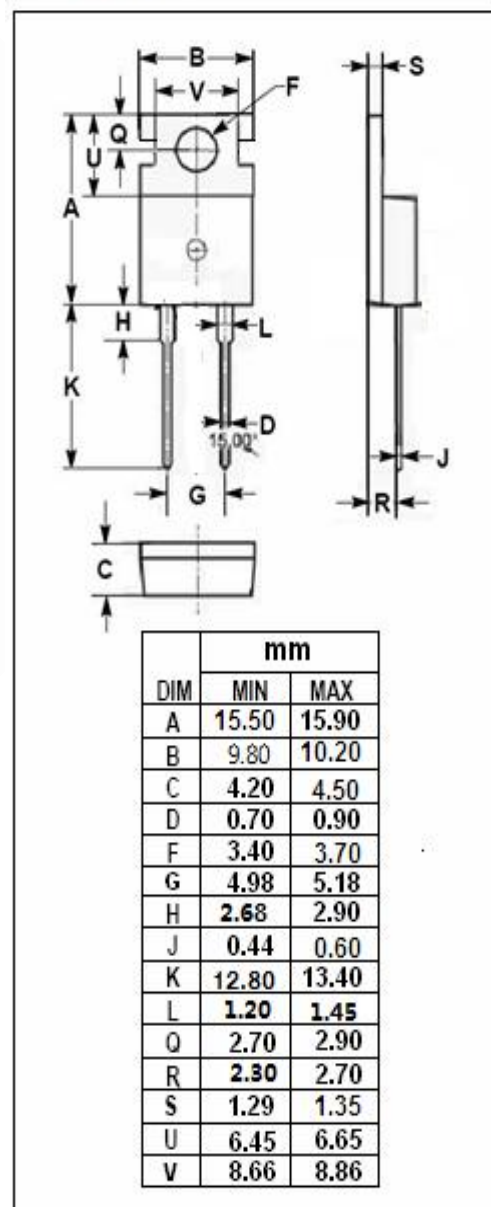
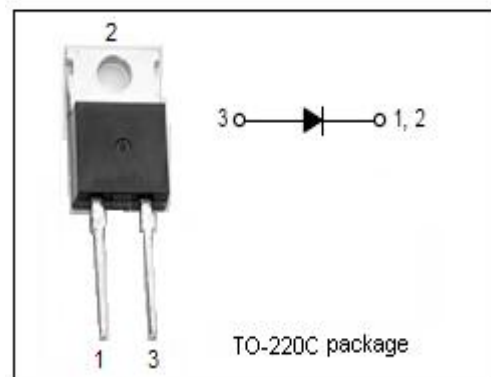
- With TO-220 packaging
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- High frequency inverters
- Reverse battery protection
- Polarity protection applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER		VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage		600	V
I_{FRM}	Repetitive Peak Forward Current		30	A
I_{FSM}	Nonrepetitive Peak Surge Current	50Hz	110	A
P_t	Total Power Dissipation @ $T_c=104^{\circ}\text{C}$		24	W
T_j	Junction Temperature		-65~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range		-65~150	$^{\circ}\text{C}$



Ultra fast Rectifier**STTA1206D****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.9	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle $\leq$ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 12A; T_c = 25^{\circ}C$ $I_F = 12A; T_c = 125^{\circ}C$	1.75 1.5	V
I_R	Maximum Instantaneous Reverse Current	$V_R = 0.8 \cdot V_{RRM}; T_c = 25^{\circ}C$ $T_c = 125^{\circ}C$	0.1 5	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 0.5A; dI_F/dt = -50A/\mu s; V_R = 30V$	55	ns