

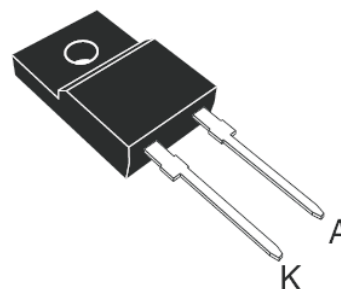
Turbo 2 ultrafast High Voltage Rectifier

STTH12R06FP

TO-220FPAC

■ Features

- Ultrafast switching
- Low reverse recovery current
- Low thermal resistance
- Reduces switching losses



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Repetitive Peak reverse voltage	V _{RRM}	600	V
RMS forward voltage	I _{F(RMS)}	30	A
Average forward current T _c =50°C	I _{F(AV)}	12	A
Surge non repetitive forward current *	I _{FSM}	100	A
Junction temperature	T _j	175	°C
Storage temperature	T _{stg}	-65 to +175	°C

* tp=10ms sinusoidal

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	V _F	I _F =12A, T _J =25°C			2.9	V
		I _F =12A, T _J =125°C		1.4	1.8	V
Reverse current	I _R	V _R =V _{RRM} , T _J =25°C			45	μA
		V _R =V _{RRM} , T _J =125°C		50	600	μA
Reverse recovery time	t _{rr}	I _F =0.5A, I _{RR} =0.25A, I _R =1A			25	ns
		I _F =1A, di _F /dt=-50A/μs V _R =30V			45	ns
Reverse recovery current	I _{RM}	I _F = 12 A V _R = 400 V, di _F /dt = -200 A/μs, T _J =125°C		7.0	8.4	A
Softness factor	S _{factor}			0.2		
Reverse recovery charges	Q _{rr}				180	
Forward recovery time	t _{fr}	I _F = 12 A ,di _F /dt = 96A/μs, T _J =25°C, V _{FR} =1.1 X V _F max			200	ns
Forward recovery voltage	V _{FP}				5.5	V