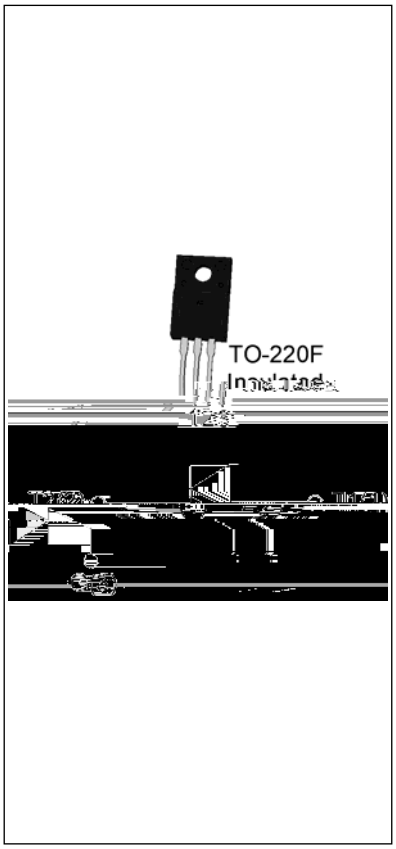
T0820H-8F 8A TRIAC

Rev.A.1.1

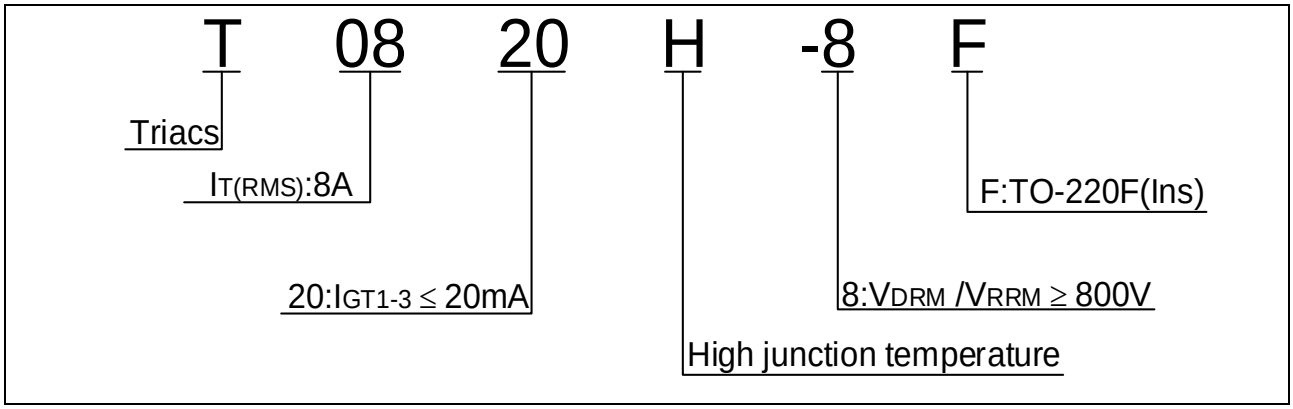
The T0820H-8F triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. Compared to traditional triacs, T0820H-8F provides a very high switching capability up to junction temperatures of 150°C. By using an external plastic package, T0820H-8F provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

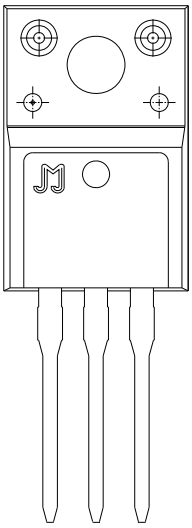


Symbol	Value	Unit
$I_{T(RMS)}$	8	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / /	20/20/20	mA

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current ($T_C \leq$ 113)	$I_{T(RMS)}$	8	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	80	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		88	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	32	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=150)	dI/dt	80	A/μs
Peak gate current (t_p=20μs , T_j=150)	I_{GM}	4	A

Average gate power dissipation (T_j=150)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage (T_j=25			


T
08
20
H
-8
F
Triacs
IT(RMS):8A
20:IGT1-3 ≤ 20mA
High junction temperature
8:VDRM /VRRM ≥ 800V
F:TO-220F(Ins)



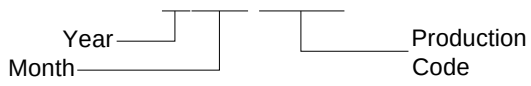

Year
Month
Production
Code

FIG.1: Maximum power dissipation versus RMS on-state current

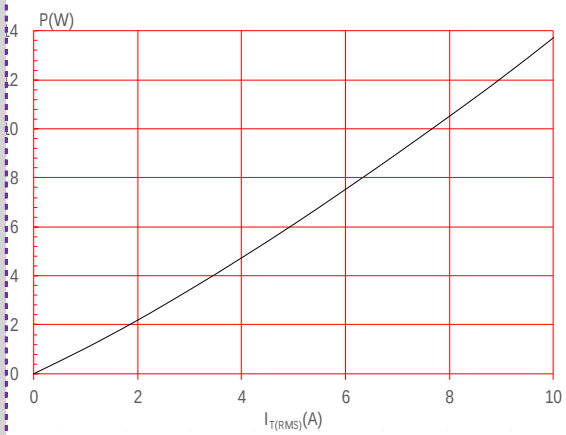


FIG.2: RMS on-state current versus case temperature

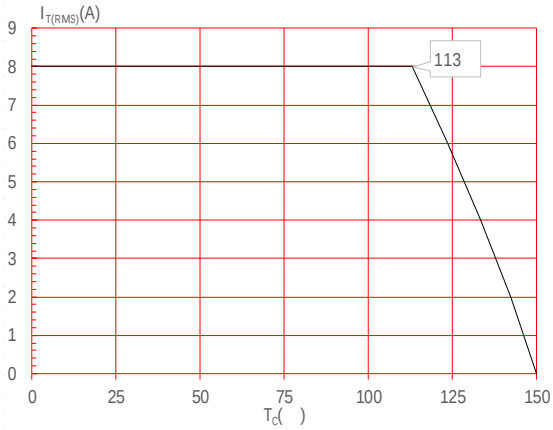


FIG.3: Surge peak on-state current versus number of cycles

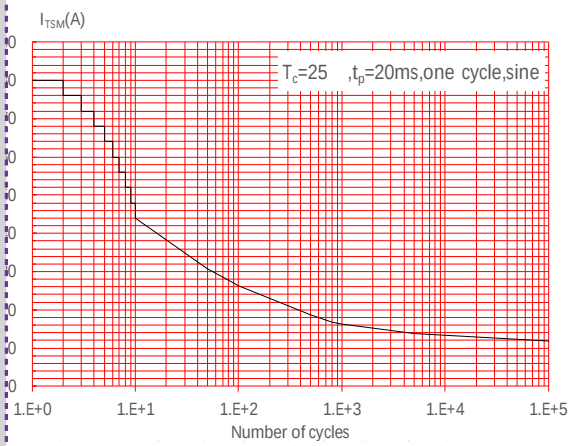


FIG.4: On-state characteristics

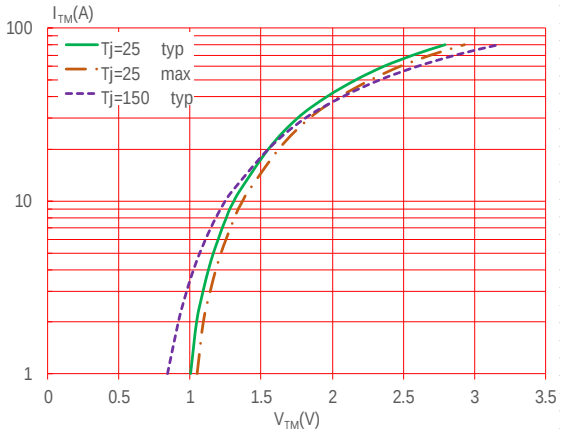


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<20ms, and corresponding value of I^2t (dI/dt<80A/μs)

FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

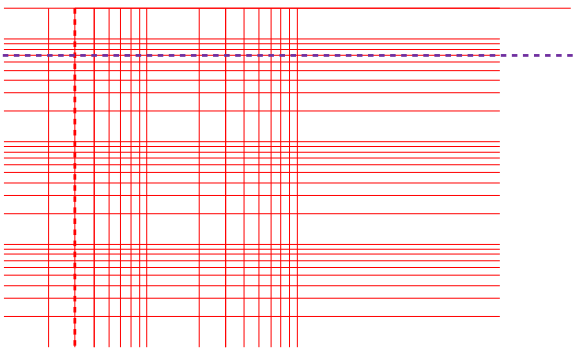
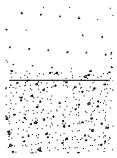


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards





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