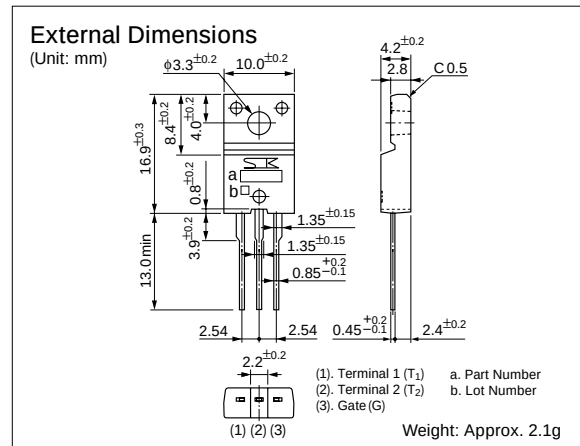


TO-220F 5A Triac

TM583S-L

■ Features

- Repetitive peak off-state voltage: $V_{DRM}=800V$
- RMS on-state current: $I_{T(RMS)}=5A$
- Gate trigger current: $I_{GT}=20mA$ max (MODE I, II, III)
- Isolation voltage: $V_{ISO}=1500V$ (50Hz Sine wave, RMS)



■ Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit	Conditions
Repetitive peak off-state voltage	V_{DRM}	800	V	$R_{GK}=\infty$, $T_j=-40$ to $+125^\circ C$
RMS on-state current	$I_{T(RMS)}$	5.0	A	Conduction angle $=360^\circ$, $T_c=101^\circ C$
Surge on-state current	I_{TSM}	45	A	50Hz full-cycle sine wave, Peak value, Non-repetitive, $T_j=125^\circ C$
Peak gate voltage	V_{GM}	10	V	$f \geq 50Hz$, duty $\leq 10\%$
Peak gate current	I_{GM}	2	A	$f \geq 50Hz$, duty $\leq 10\%$
Peak gate power dissipation	P_{GM}	5	W	$f \geq 50Hz$, duty $\leq 10\%$
Average gate power dissipation	$P_{G(AV)}$	0.5	W	
Junction temperature	T_j	-40 to $+125$	$^\circ C$	
Storage temperature	T_{stg}	-40 to $+125$	$^\circ C$	
Isolation voltage	V_{ISO}	1500	Vrms	50Hz Sine wave, RMS, Terminal to Case, 1 min.

■ Electrical Characteristics

($T_j=25^\circ C$, unless otherwise specified)

Parameter	Symbol	Ratings			Unit	Conditions
		min	typ	max		
Off-state current	I_{DRM}			2.0	mA	$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=125^\circ C$
				0.1		$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=25^\circ C$
On-state voltage	V_{TM}			1.6	V	$I_{TM}=7A$, $T_c=25^\circ C$
Gate trigger voltage	I	V_{GT}	1.3	2.0	V	T_2^+, G^+
	II		0.7	2.0		T_2^+, G^-
	III		0.8	2.0		T_2^-, G^-
Gate trigger current	I	I_{GT}	7	20	mA	T_2^+, G^+
	II		10	20		T_2^+, G^-
	III		12	20		T_2^-, G^-
Gate non-trigger voltage	V_{GD}	0.2			V	$V_D=1/2 \times V_{DRM}$, $T_j=125^\circ C$
Holding current	I_H		20		mA	$T_j=25^\circ C$
Rising rate of off-state voltage in commutating	$(dv/dt)_c$	5			V/ μs	$V_D=400V$, $(di/dt)_c=-2A/ms$, $T_j=125^\circ C$, $I_T=1A$
Thermal resistance	R_{th}			4.0	$^\circ C/W$	Junction to Case