

TO-220 3A Triac

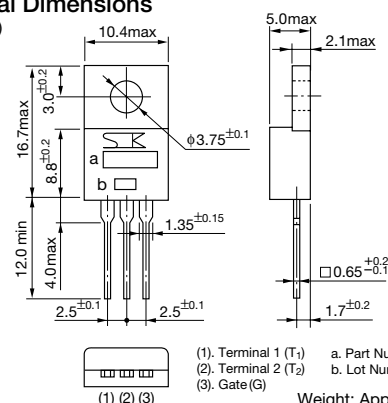
TM341M-L, TM361M-L

■ Features

- Repetitive peak off-state voltage: $V_{DRM}=400, 600V$
- RMS on-state current: $I_{T(RMS)}=3A$
- Gate trigger Current: $I_{GT}=20mA$ max (MODE I, II, III)

External Dimensions

(Unit: mm)



■ Absolute Maximum Ratings

Parameter	Symbol	Ratings		Unit	Conditions
		TM341M-L	TM361M-L		
Repetitive peak off-state voltage	V_{DRM}	400	600	V	
RMS on-state current	$I_{T(RMS)}$	3.0		A	Conduction angle 360°, $T_c=115^{\circ}C$
Surge on-state current	I_{TSM}	30		A	50Hz full-cycle sine wave, Peak value, Non-repetitive, $T_j=125^{\circ}C$
Peak gate voltage	V_{GM}	6		V	
Peak gate current	I_{GM}	0.5		A	
Peak gate power loss	P_{GM}	3		W	
Average gate power loss	$P_{G(AV)}$	0.3		W	
Junction temperature	T_j	-40 to +125		$^{\circ}C$	
Storage temperature	T_{stg}	-40 to +125		$^{\circ}C$	

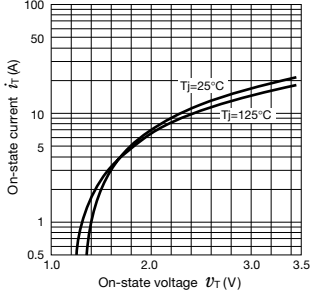
■ Electrical Characteristics

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

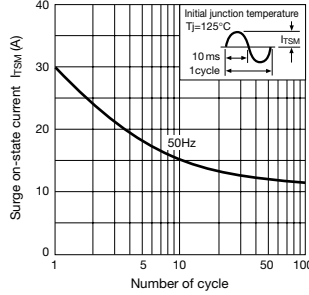
Parameter		Symbol	Ratings			Unit	Conditions	
			min	typ	max			
Off-state current		I _{DRM}		0.3	2.0	mA	V _D =V _{DRM} , R _{GK} =∞, T _J =125°C	
					0.1		V _D =V _{DRM} , R _{GK} =∞, T _J =25°C	
On-state voltage		V _{TM}			1.6	V	Pulse test, I _{TM} =5A	
Gate trigger voltage	I	V _{GT}		0.7	2.0	V	V _D =6V, R _L =10Ω, T _C =25°C	T ₂ ⁺ , G ⁺
	II			0.7	2.0			T ₂ ⁺ , G ⁻
	III			0.8	2.0			T ₂ ⁻ , G ⁻
	IV			0.8				T ₂ ⁻ , G ⁺
Gate trigger current	I	I _{GT}		8	20	mA	V _D =6V, R _L =10Ω, T _C =25°C	T ₂ ⁺ , G ⁺
	II			10	20			T ₂ ⁺ , G ⁻
	III			12	20			T ₂ ⁻ , G ⁻
	IV			15				T ₂ ⁻ , G ⁺
Gate non-trigger voltage		V _{GD}	0.2			V	V _D =1/2×V _{DRM} , T _J =125°C	
Holding current		I _H		10		mA	V _D =6V	
Thermal resistance		R _{th}			3.0	°C/W	Junction to case	

TM341M-L, TM361M-L

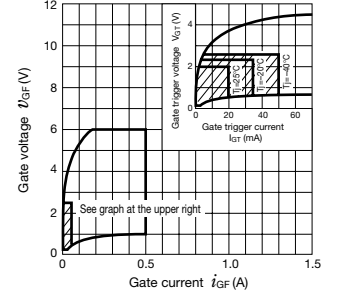
$V_T - I_T$ Characteristics (max)



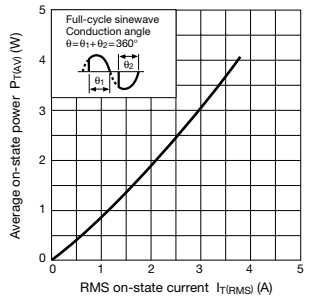
I_{TSM} Ratings



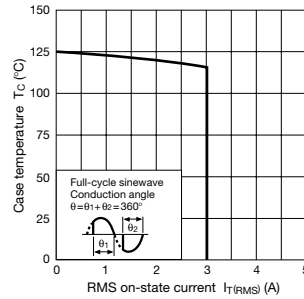
Gate Characteristics



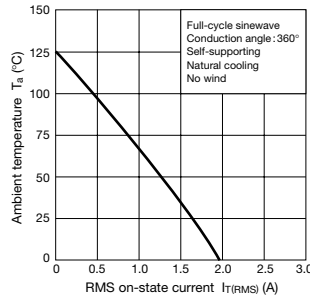
$I_T(RMS) - P_T(AV)$ Characteristics



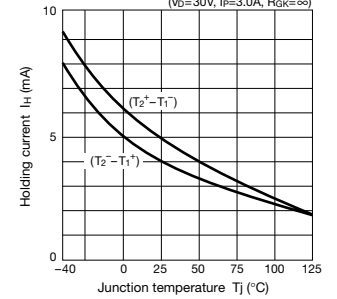
$I_T(RMS) - T_C$ Ratings



$I_T(RMS) - T_a$ Ratings

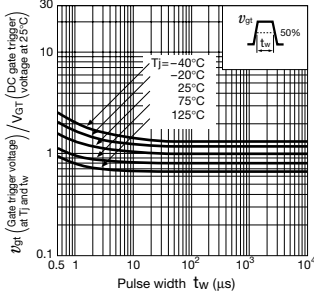


I_H temperature Characteristics (Typical)

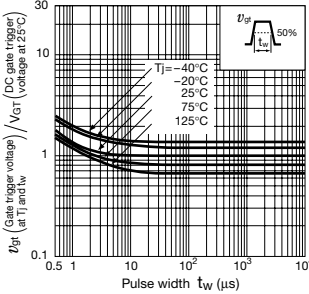


Pulse trigger temperature Characteristics V_{GT} (Typical)

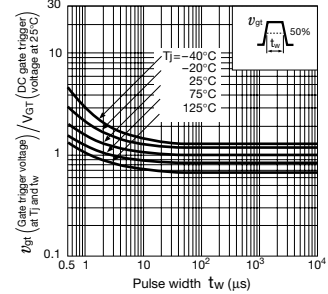
(MODE-I)



(MODE-II)

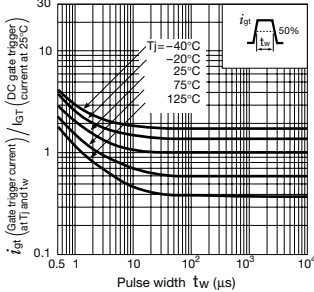


(MODE-III)

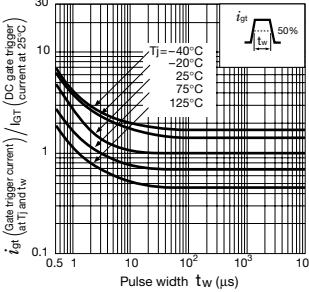


Pulse trigger temperature Characteristics I_{GT} (Typical)

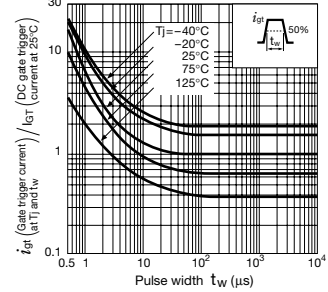
(MODE-I)



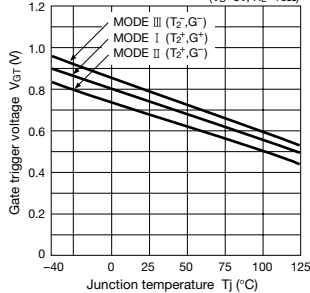
(MODE-II)



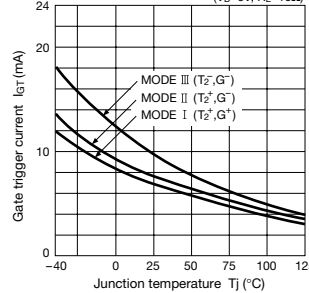
(MODE-III)



V_{GT} temperature characteristics (Typical)



I_{GT} temperature characteristics (Typical)



Transient thermal resistance Characteristics

