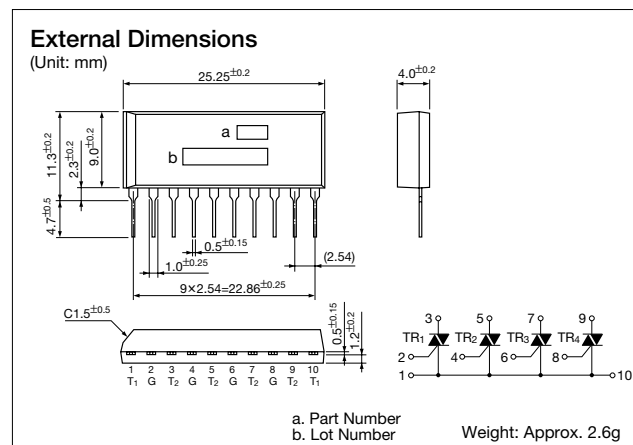


STA221A

■ Features

- 1A 4 Triacs combined one package
- Repetitive peak off-state voltage: $V_{DRM}=400V$
- RMS on-state current: $I_{T(RMS)}=1A$
- Gate trigger current: $I_{GT}=3mA$ max (MODE I, II, III)



■ Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit	Conditions
Repetitive peak off-state voltage	V _{DRM}	400	V	−40°C to +125°C
RMS on-state current	I _{T(RMS)}	1.0	A	Conduction angle 360°, T _c =97°C
Surge on-state current	I _{TSM}	10	A	50Hz full-cycle sinewave, Peak value, Non-repetitive, T _j =125°C
Peak forward gate voltage	V _{GM}	6	V	f ≥ 50Hz, duty ≤ 10%
Peak forward gate current	I _{GM}	0.5	A	f ≥ 50Hz, duty ≤ 10%
Peak gate power loss	P _{GM}	1.0	W	f ≥ 50Hz, duty ≤ 10%
Average gate power loss	P _{G(AV)}	0.1	W	
Junction temperature	T _j	−40 to +125	°C	
Storage temperature	T _{stg}	−40 to +125	°C	

■Electrical Characteristics

Parameter		Symbol	Ratings			Unit	Conditions	
			min	typ	max			
Off-state current		I _{DRM}		0.1	1.0	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	I _{TM} =1.6A, T _C =25°C	
Gate trigger voltage	I	V _{GT}		1.7	3.5	V	V _D =6V, R _L =10Ω, T _C =25°C	T ₂ ⁺ , G ⁺
	II			0.7	1.2			T ₂ ⁺ , G ⁻
	III			0.8	1.2			T ₂ ⁻ , G ⁻
	IV			2.0				T ₂ ⁻ , G ⁺
Gate trigger current	I	I _{GT}		2.0	3.0	mA	V _D =6V, R _L =10Ω, T _C =25°C	T ₂ ⁺ , G ⁺
	II			1.8	3.0			T ₂ ⁺ , G ⁻
	III			2.3	3.0			T ₂ ⁻ , G ⁻
	IV			13.0				T ₂ ⁻ , G ⁺
Gate non-trigger voltage		V _{GD}	0.1			V	V _D =1/2×V _{DRM} , T _J =125°C	
Thermal resistance		I _H			20	°C/W	Junction to Lead, 1 element operation	
		R _{th}			80		junction to operating environment, 1 element operation	