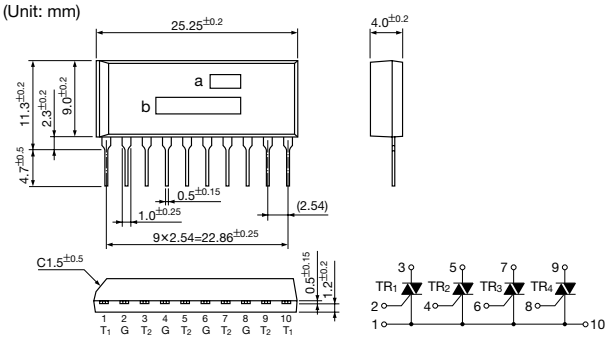
1A 4 circuits Triac Array

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)

External Dimensions
(Unit: mm)



a. Part Number
b. Lot Number

Weight: Approx. 2.6g

■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°, Tc=97°C
Surge on-state current	I_{TSM}	10	A	50Hz full-cycle sinewave, Peak value, Non-repetitive, Tj=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	Tj	−40 to +125	°C	
Storage temperature	Tstg	−40 to +125	°C	

■Electrical Characteristics

Parameter		Symbol	Ratings min	Ratings typ	Ratings max	Unit	Conditions	
Off-state current		I_{DRM}		0.1	1.0	mA	V_D=V_{DRM}, R_{GK}=∞, Tj=125°C	
					0.1		V_D=V_{DRM}, R_{GK}=∞, Tj=25°C	
On-state voltage		V_{TM}			1.6	V	I_{TM}=1.6A, Tc=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}, Tj=125°C	
Thermal resistance		I_H			20	°C/W	Junction to Lead, 1 element operation	
		Rth			80		junction to operating environment, 1 element operation	