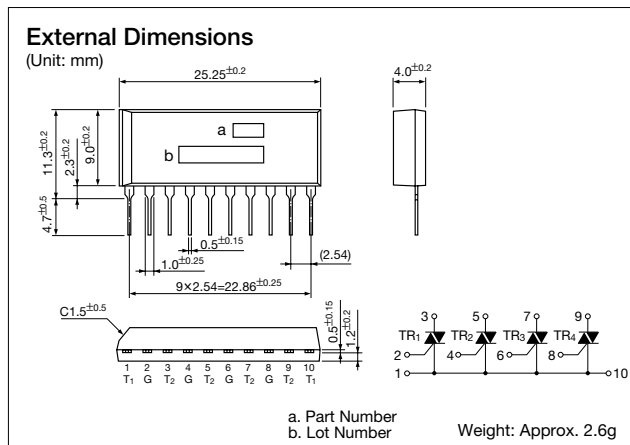


1A 4 circuits Triac Array

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)



■ Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit	Conditions
Repetitive peak off-state voltage	V_{DRM}	400	V	$-40^{\circ}C$ to $+125^{\circ}C$
RMS on-state current	$I_{T(RMS)}$	1.0	A	Conduction angle 360° , $T_c=97^{\circ}C$
Surge on-state current	I_{TSM}	10	A	50Hz full-cycle sine wave, Peak value, Non-repetitive, $T_j=125^{\circ}C$
Peak forward gate voltage	V_{GM}	6	V	$f \geq 50Hz$, duty $\leq 10\%$
Peak forward gate current	I_{GM}	0.5	A	$f \geq 50Hz$, duty $\leq 10\%$
Peak gate power loss	P_{GM}	1.0	W	$f \geq 50Hz$, duty $\leq 10\%$
Average gate power loss	$P_{G(AV)}$	0.1	W	
Junction temperature	T_j	-40 to $+125$	$^{\circ}C$	
Storage temperature	T_{stg}	-40 to $+125$	$^{\circ}C$	

■ Electrical Characteristics

Parameter		Symbol	Ratings			Unit	Conditions
			min	typ	max		
Off-state current		I_{DRM}		0.1	1.0	mA	$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=125^{\circ}C$
					0.1		$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=25^{\circ}C$
On-state voltage		V_{TM}			1.6	V	$I_{TM}=1.6A$, $T_c=25^{\circ}C$
Gate trigger voltage	I	V_{GT}		1.7	3.5	V	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	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	$V_D=1/2 \times V_{DRM}$, $T_j=125^{\circ}C$
Thermal resistance		I_H			20	$^{\circ}C/W$	Junction to Lead, 1 element operation
		R_{th}			80		junction to operating environment, 1 element operation