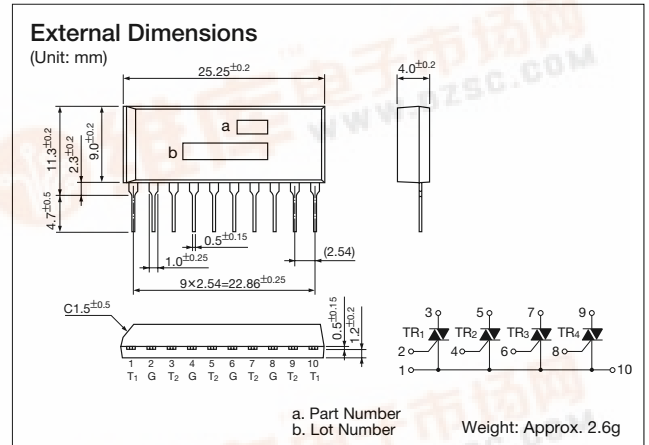


1A 4 circuits Triac Array

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°C to +125°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 sinewave, 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	°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	$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=125^\circ C$	
				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	V _{GT}	I		1.7	V	$V_D=6V$, $R_L=10\Omega$, $T_c=25^\circ C$	T_2^+ , G^+
		II		0.7			T_2^+ , G^-
		III		0.8			T_2^-, G^-
		IV		2.0			T_2^-, G^+
Gate trigger current	I _{GT}	I		2.0	mA	$V_D=6V$, $R_L=10\Omega$, $T_c=25^\circ C$	T_2^+ , G^+
		II		1.8			T_2^+ , G^-
		III		2.3			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	R_{th}			20	°C/W	Junction to Lead, 1 element operation	
	R_{th}			80		junction to operating environment, 1 element operation	

