1.2A 3 circuits Triac Array

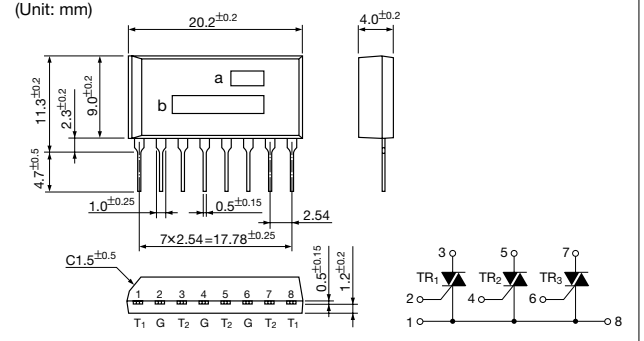
STA203A

■Features

- ●1.2A 3 Triacs combined one package
- ●Repetitive peak off-state voltage: V_{DRM}=400V
- ●RMS on-state current: $I_{T(RMS)}$=1.2A
- ●Gate trigger current: I_{GT}=3mA max (MODE Ⅰ, Ⅱ, Ⅲ)

External Dimensions

(Unit: mm)



a. Part Number
b. Lot Number

Weight: Approx. 2.1g

■Absolute Maximum Ratings

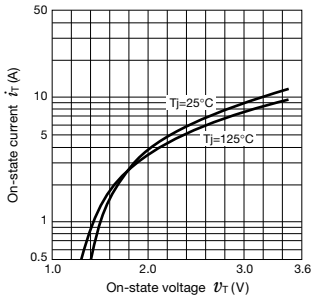
Parameter	Symbol	Ratings	Unit	Conditions
Repetitive peak off-state voltage	V_{DRM}	400	V	
RMS on-state current	$I_{T(RMS)}$	1.2	A	Conduction angle 360°, Tc=97°C
Surge on-state current	I_{TSM}	10	A	50Hz full-cycle sinewave, Peak value, Non-repetitive, Tj=125°C
Peak gate voltage	V_{GM}	6	V	
Peak gate current	I_{GM}	0.5	A	
Peak gate power loss	P_{GM}	1	W	
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

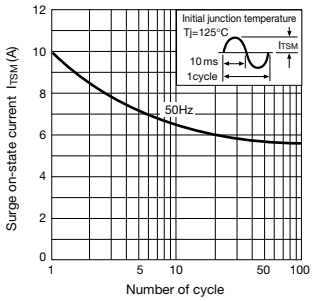
(Tj=25°C, unless otherwise specified)

Parameter		Symbol	Ratings			Unit	Conditions	
			min	typ	max			
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	Pulse test, I_{TM}=1.6A	
Gate trigger voltage	Ⅰ	V_{GT}		2.0	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	
Holding current		I_H			5.0	mA	V_D=6V	
Thermal resistance		Rth			20.0	°C/W	Junction to case	

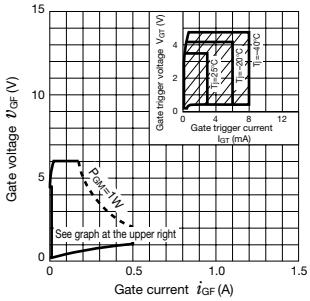
$v_T - i_T$ Characteristics (max)



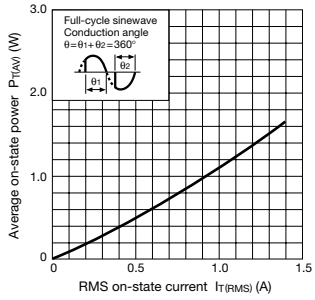
I_{TSM} Ratings



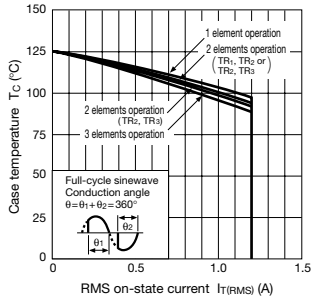
Gate Characteristics



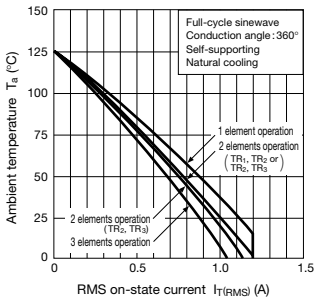
$I_{T(RMS)} - P_{T(AV)}$ Characteristics



$I_{T(RMS)} - T_C$ Ratings

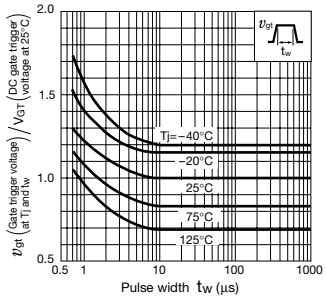


$I_{T(RMS)} - T_a$ Ratings

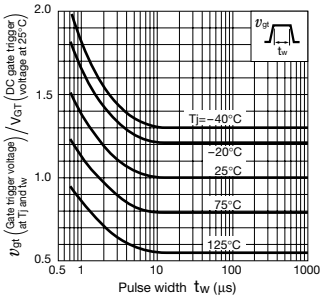


Pulse trigger temperature Characteristics v_{gt} (Typical)

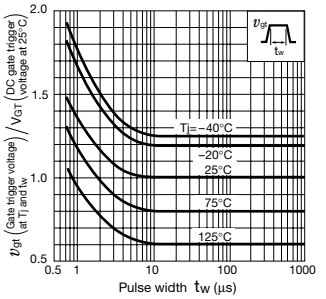
(MODE−Ⅰ)



(MODE−Ⅱ)

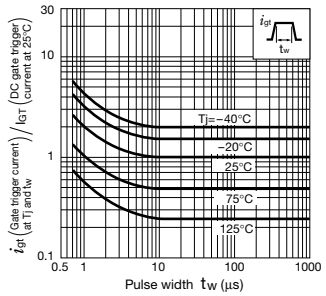


(MODE−Ⅲ)

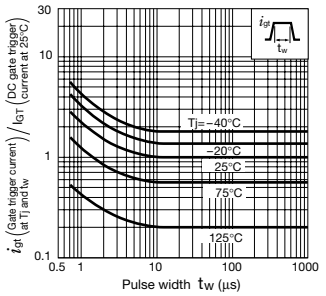


Pulse trigger temperature Characteristics i_{gt} (Typical)

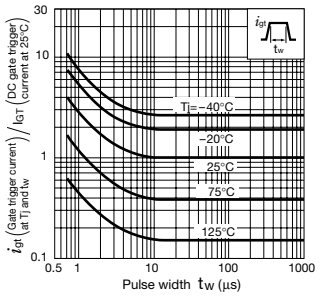
(MODE−Ⅰ)



(MODE−Ⅱ)



(MODE−Ⅲ)



Transient thermal resistance Characteristics

