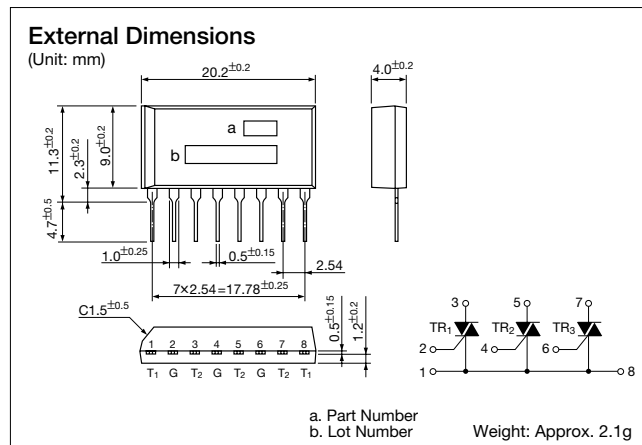


1.2A 3 circuits Triac Array

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)



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°, $T_c=97^\circ C$
Surge on-state current	I_{TSM}	10	A	50Hz full-cycle sine wave, Peak value, Non-repetitive, $T_j=125^\circ C$
Peak 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	T_j	-40 to +125	$^\circ C$	
Storage temperature	T_{stg}	-40 to +125	$^\circ C$	

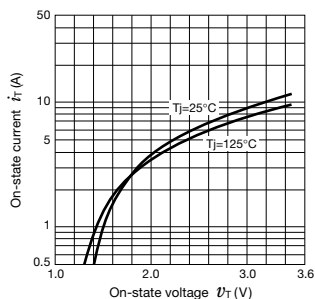
Electrical Characteristics

(T_j=25°C, unless otherwise specified)

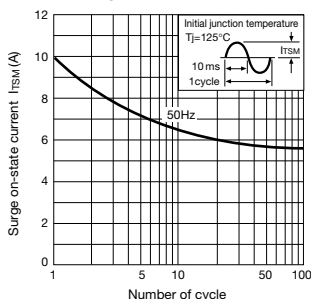
Parameter	Symbol	Ratings			Unit	Conditions		
		min	typ	max				
Off-state current	I_{DRM}		0.1	1.0	mA	$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=125^\circ C$		
				0.1		$V_D=V_{DRM}$, $R_{GK}=\infty$, $T_j=25^\circ C$		
On-state voltage	V_{TM}			1.6	V	Pulse test, $I_{TM}=1.6A$		
Gate trigger voltage	I	V _{GT}		2.0	3.5	V	$V_D=6V$, $R_L=10\Omega$, $T_c=25^\circ C$	
				0.7	1.2			T_2^+ , G^+
				0.8	1.2			T_2^+ , G^-
				2.0				T_2^- , G^-
Gate trigger current	I	I _{GT}		2.0	3.0	mA	$V_D=6V$, $R_L=10\Omega$, $T_c=25^\circ C$	
				1.8	3.0			T_2^+ , G^-
				2.3	3.0			T_2^- , G^-
				13.0				T_2^- , G^+
Gate non-trigger voltage	V_{GD}	0.1			V	$V_D=1/2 \times V_{DRM}$, $T_j=125^\circ C$		
Holding current	I_H			5.0	mA	$V_D=6V$		
Thermal resistance	R_{th}			20.0	$^\circ C/W$	Junction to case		

STA203A

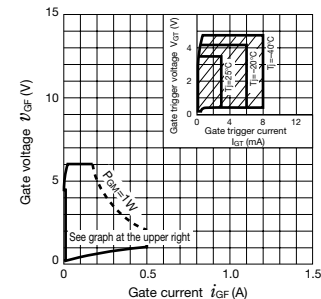
$V_T - I_T$ Characteristics (max)



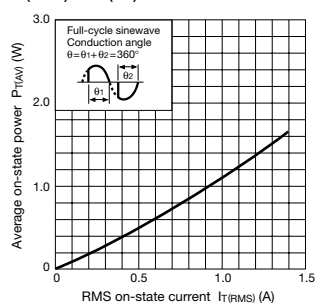
I_{TSM} Ratings



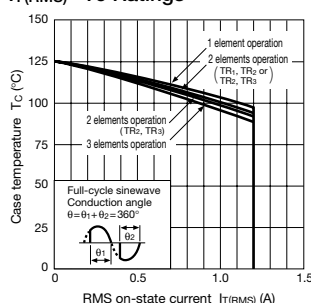
Gate Characteristics



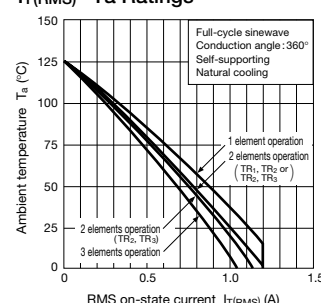
$I_{T(RMS)} - P_{T(AV)}$ Characteristics



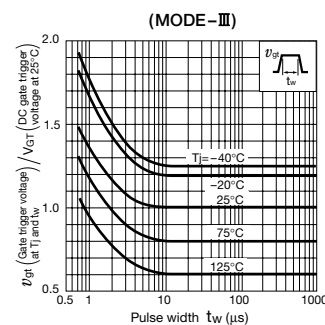
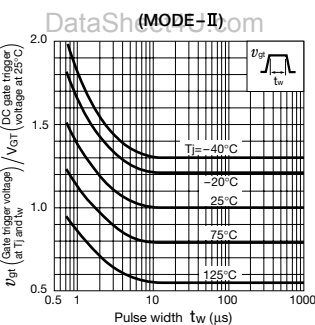
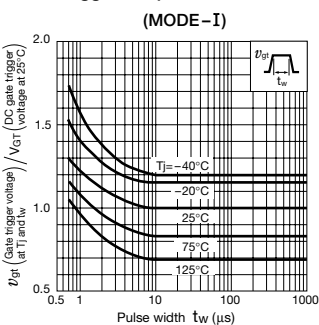
$I_{T(RMS)} - T_C$ Ratings



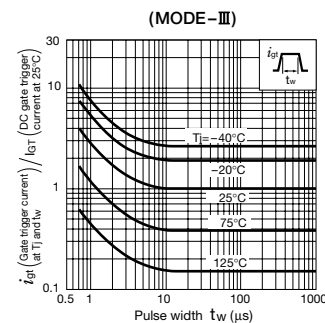
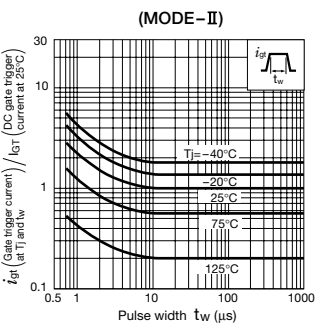
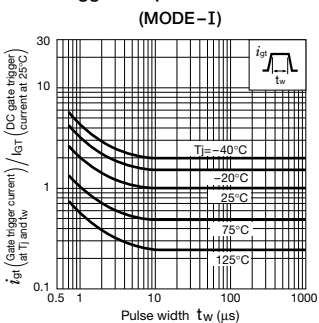
$I_{T(RMS)} - T_a$ Ratings



Pulse trigger temperature Characteristics V_{gt} (Typical)



Pulse trigger temperature Characteristics I_{gt} (Typical)



Transient thermal resistance Characteristics

