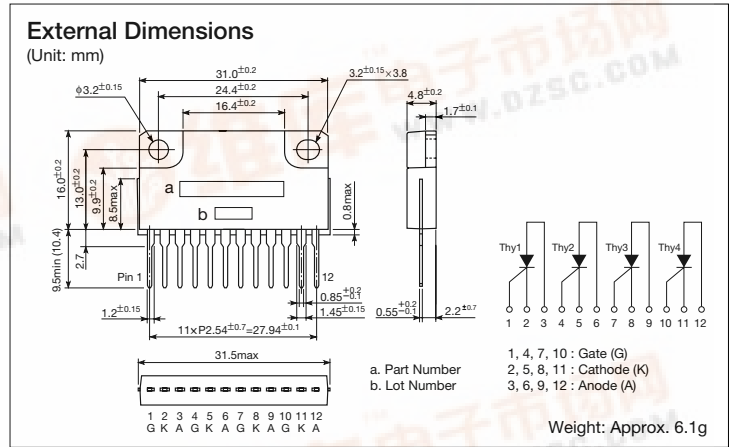# 5A 600V 4 circuits Thyristor array

SLA0201

■Features

- 5A 4 Thyristors combined one package
- Repetitive peak off-state voltage: V_{DRM}=600V
- Average on-state current: $I_{T(AV)}$=5A
- Gate trigger current: I_{GT}=10mA max

External Dimensions
(Unit: mm)

Weight: Approx. 6.1g

a. Part Number
b. Lot Number

1, 4, 7, 10 : Gate (G)
2, 5, 8, 11 : Cathode (K)
3, 6, 9, 12 : Anode (A)

■Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit	Conditions
Repetitive peak off-state voltage	V_{DRM}	600	V	T_j=−40 to +125°C, R_{GK}=1kΩ
Repetitive peak reverse voltage	V_{RRM}	600	V	
Non-repetitive peak off-state voltage	V_{DSM}	650	V	
Non-repetitive peak reverse voltage	V_{RSM}	650	V	
Average on-state current	$I_{T(AV)}$	5.0	A	50Hz Half-cycle sinewave, Conduction angle 180°, Continuous current
RMS on-state current	$I_{T(RMS)}$	7.8	A	
Surge on-state current	I_{TSM}	80	A	50Hz Half-cycle sinewave, Single shot, Non-repetitive, T_j=125°C
Peak forward gate current	I_{FGM}	2.0	A	f≧50Hz, duty≦10%
Peak forward gate voltage	V_{FGM}	10	V	
Peak reverse gate voltage	V_{RGM}	5.0	V	f≧50Hz
Peak gate power loss	P_{GM}	5.0	W	f≧50Hz, duty≦10%
Average gate power loss	$P_{G(AV)}$	0.5	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}			2.0	mA	T_j=125°C, V_D=600V, R_{GK}=1kΩ
				100	µA	T_j=25°C, V_D=600V, R_{GK}=1kΩ
Reverse current	I_{RRM}			2.0	mA	T_j=125°C, V_D=600V, R_{GK}=1kΩ
				100	µA	T_j=25°C, V_D=600V, R_{GK}=1kΩ
On-state voltage	V_{TM}			1.4	V	T_C=25°C, I_{TM}=10A
Gate trigger voltage	V_{GT}		0.7	1.5	V	V_D=6V, R_L=10Ω, T_C=25°C
Gate trigger current	I_{GT}		5.0	10	mA	
Gate non-trigger voltage	V_{GD}	0.1			V	V_D=1/2×V_{DRM}, T_j=125°C, R_{GK}=1kΩ
Holding current	I_H		4.0		mA	R_{GK}=1kΩ, T_j=25°C
Critical rate-of-rise of off-state voltage	dv/dt		50		V/µS	V_D=1/2×V_{DRM}, T_j=125°C, R_{GK}=1kΩ, C_{GK}=0.033µF
Total power dissipation	P_T			4	W	Without Heatsink, T_j=25°C, All elements operation
				32		With infinite Heatsink, T_j=25°C, All elements operation