

Thyristor Module(Isolated Mold Type)

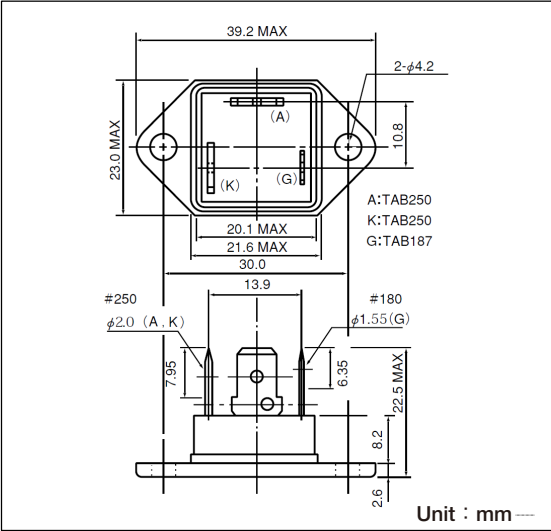
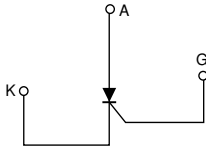
SG16AA40/60

UL; E76102

《Features》

SG16AA is an isolated molded thyristor which is suitable for a wide range of industrial and home electronics uses. SG16AA uses highly reliable glass passivation.

- $I_{T(AV)}=16A$
- high Surge Capability
- Tab terminals for easy wiring



■ Maximum Ratings (Tj=25°C unless otherwise specified)

Item	Symbol	Unit	SG16AA40	SG16AA60
Repetitive Peak Reverse Voltage	V_{RRM}	V	400	600
Non-Repetitive Peak Reverse Voltage	V_{RSM}	V	480	720
Repetitive Peak off-State Voltage	V_{DRM}	V	400	600

Item	Symbol	Unit	Ratings	Conditions
Average On-State Current	$I_{T(AV)}$	A	16	Single phase, half wave, 180° conduction, Tc : 80°C
R.M.S. On-State Current	$I_{T(RMS)}$	A	25	Single phase, half wave, 180° conduction, Tc : 80°C
Surge On-State Current	I_{TSM}	A	220/250	1/2cycle, 50/60Hz, peak value, non-repetitive
I^2t (for fusing)	I^2t	A ² s	260	
Peak Gate Power Dissipation	P_{GM}	W	10	
Average Gate Power Dissipation	$P_{G(AV)}$	W	1	
Peak Gate Current	I_{FGM}	A	3	
Peak Gate Voltage (Forward)	V_{FGM}	V	10	
Peak Gate Voltage (Reverse)	V_{RGM}	V	5	
Critical Rate of Rise of On-State Current	di/dt	A/μs	100	$I_G=100mA$ $V_D=1/2V_{DRM}$ $dI_G/dt=1A/μs$
Isolation Breakdown Voltage (R.M.S.)	V_{ISO}	V	2500	A.C. 1minute
Operating Junction Temperature	T_j	°C	-40 to +125	
Storage Temperature	T_{stg}	°C	-40 to +125	
Mounting Torque	Mounting M4	N·m (kgf·cm)	1.5(15)	Recommended Value 1.0 to 1.4 (10 to 14)
Mass		g	23	

■ Electrical Characteristics (Tj=25°C unless otherwise specified)

Item	Symbol	Unit	Ratings	Conditions
Repetitive Peak Off-State Current, max.	I_{DRM}	mA	3	at V_{DRM} , Single phase, half wave
Repetitive Peak Reverse Current, max.	I_{RRM}	mA	3	at V_{RRM} , Single phase, half wave
Peak On-State Voltage, max.	V_{TM}	V	1.5	On-State Current 50A Inst. measurement
Gate Trigger Current/Voltage, max.	I_{GT}/V_{GT}	mA/V	40/3	$I_T=1A$ $V_D=6V$
Non-Trigger Gate Voltage, min.	V_{GD}	V	0.2	$T_j=125°C$ $V_D=1/2V_{DRM}$
Turn On Time, max.	t_{gt}	μs	10	$I_T=16A$ $I_G=100mA$ $V_D=1/2V_{DRM}$ $dI_G/dt=1A/μs$
Critical Rate of Rise of Off-State Voltage, min	dv/dt	V/μs	100	$T_j=125°C$ $V_D=2/3V_{DRM}$ Exponential wave.
Holding Current, typ.	I_H	mA	30	
Thermal Resistance, max	R_{th}	°C/W	2.0	Junction to case

