

## HIGH POWER THYRISTOR / THYRISTOR PHASE CONTROL MODULE

### Features:

- . High Voltage Capability
- . Electrically Isolated Base Plate
- . High Surge Capability
- . High dv/dt Capability
- . Hard soldered Joints for high reliability

### Typical Applications:

- . DC Motor Control (machine Tools, etc.)
- . AC Motor Soft Starters
- . Temperature Control (ovens, chemical & oil processes, etc)
- . Professional light Control & Dimming (studios, theatres, etc)
- . Input Converters & Induction Motors

## ELECTRICAL CHARACTERISTICS AND RATINGS

### Maximum Ratings

Symbol	Condition	Ratings	Unit
ITAVM	Single phase, half wave, 180° conduction, Tc: 85C	70	A
ITSM	10ms, Tj=125C	1450	A
I <sup>2</sup> t	10ms, Tj=125C	10500	A <sup>2</sup> S
( Di/DT ) <sub>cr</sub>	Tj=125C	100	A/us
Visol	A.C.1minute	3000	V
Tj		-40~+125	C
Tstg		-40~+125	C
W		220	g

### Electrical Characteristics

Symbol	Condition	Ratings	Unit
V <sub>DRM</sub> /V <sub>R<sub>RRM</sub></sub>		2400	V
I <sub>DRM</sub>	AtV <sub>DRM</sub> , Single phase, half wave, Tj=125C	25	mA
I <sub>R<sub>RRM</sub></sub>	AtV <sub>R<sub>RRM</sub></sub> , Single phase, half wave, Tj=125C	25	mA
V <sub>TM</sub>	On-State Current 300A, Tj=125C	2.30	V
I <sub>GT</sub>	Tj=25C , I <sub>T</sub> =1A, V <sub>D</sub> =6V	150	mA
V <sub>GT</sub>	Tj=25C , I <sub>T</sub> =1A, V <sub>D</sub> =6V	3	V
V <sub>GD</sub>	Tj=125C , V <sub>D</sub> =1/2V <sub>DRM</sub>	0.25	V
DV/DT	Tj=125C , V <sub>D</sub> =2/3V <sub>DRM</sub> ,	1000	V/us
I <sub>H</sub>	Tj=25C , @ V <sub>D</sub> =6V RA=5	300 (max)	mA
I <sub>L</sub>	Tj=25C , @ V <sub>d</sub> =6V RGK=>/=10 I <sub>gm</sub> =1A dig/dt- 1A/us tg=20us	1200 (max)	mA
T <sub>q</sub>	Tj=125C , I <sub>TM</sub> =I <sub>TAVM</sub> , V <sub>DM</sub> =0.67V <sub>DRM</sub>	300	us
R <sub>th(j-c)</sub>	Per thyristor	0.35	C /W

STT70N24KOF

