

## 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
$I_T(AV)$	Single phase, half wave, 180° conduction, $T_c: 85C$	215	A
$I_{TSM}$	10ms, $T_j=125C$	6300	A
$I^2t$	10ms, $T_j=125C$	198000	$A^2S$
$(di/dt)_{cr}$	$T_j=125C$	100	A/us
Viso	A.C.1minute	3000	V
$T_j$		-40~+125	C
$T_{stg}$		-40~+125	C
W		850	g

### Electrical Characteristics

Symbol	Condition	Ratings	Unit
$V_{DRM}/V_{RRM}$		2400	V
$I_{DRM}$	At $V_{DRM}$ , Single phase, half wave, $T_j=125C$	50	mA
$I_{RRM}$	At $V_{DRM}$ , Single phase, half wave, $T_j=125C$	50	mA
$V_{TM}$	On-State Current 800A, $T_j=125C$	1.90	V
$I_{GT}$	$T_j=25C$ , $I_T=1A$ , $V_D=6V$	200	mA
$V_{GT}$	$T_j=25C$ , $I_T=1A$ , $V_D=6V$	2	V
$V_{GD}$	$T_j=125C$ , $V_D=1/2V_{DRM}$	0.25	V
$DV/DT$	$T_j=125C$ , $V_D=2/3V_{DRM}$ ,	1000	V/us
$I_H$	$T_j=25C$ , @ $V_d=6V$ RA=5	300 (max)	mA
$I_L$	$T_j=25C$ , @ $V_d=6V$ RGK=>/=10 $I_{gm}=1A$ dig/dt- 1A/us tg=20us	1200(max)	mA
$T_q$	$T_j=125C$ , $I_{TM}=I_{TAVM}$ , $V_{DM}=0.67V_{DRM}$	300	us
$R_{th(j-c)}$	Per thyristor, sin180	0.15	C /W

STT215N24TOF

