

SCT1400

Power Rectifier Thyristor

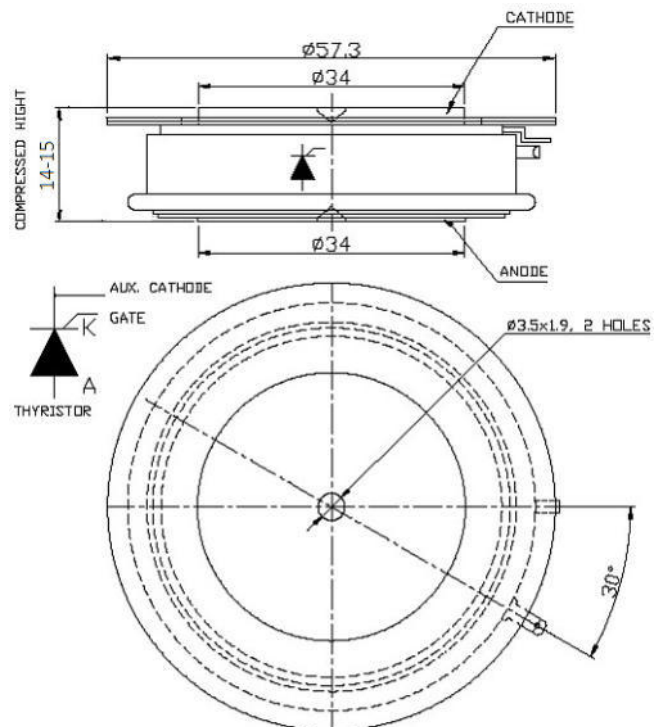


Key Parameters

V_{DRM} / V_{RRM}	= 800V
$I_{T(AV)}$	= 1400A
I_{TSM}	= 26.0kA
$V_{T(TO)}$	= 0.80V
r_T	= 0.14m Ω

Features

- Full blocking capability over wide temperature range
- High Surge current capability
- Hermetic metal case with ceramic insulator



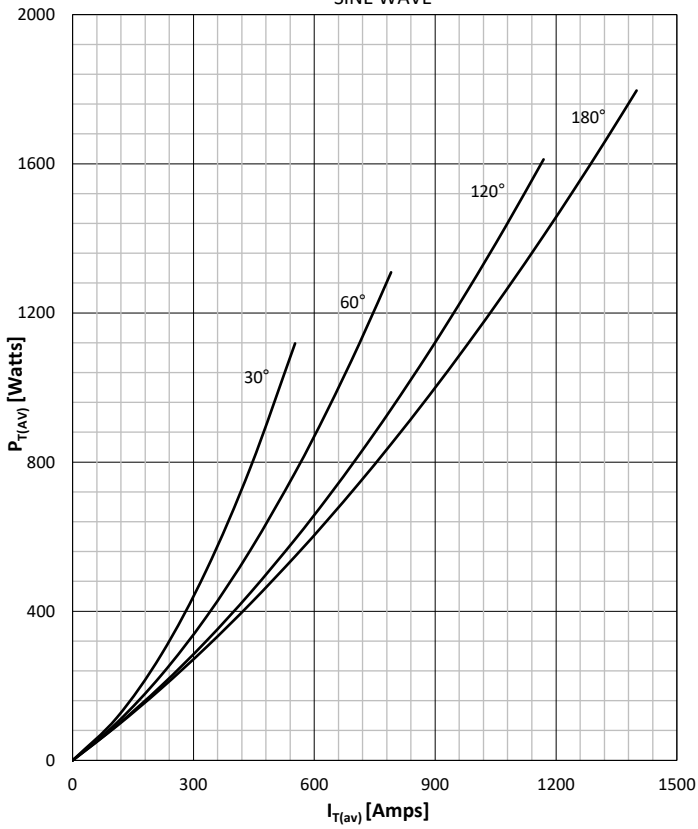
Applications

- Medical Equipment
- UPS
- Power Supplies
- Motor control
- Controlled Rectifiers
- Transportation
- Induction Heating

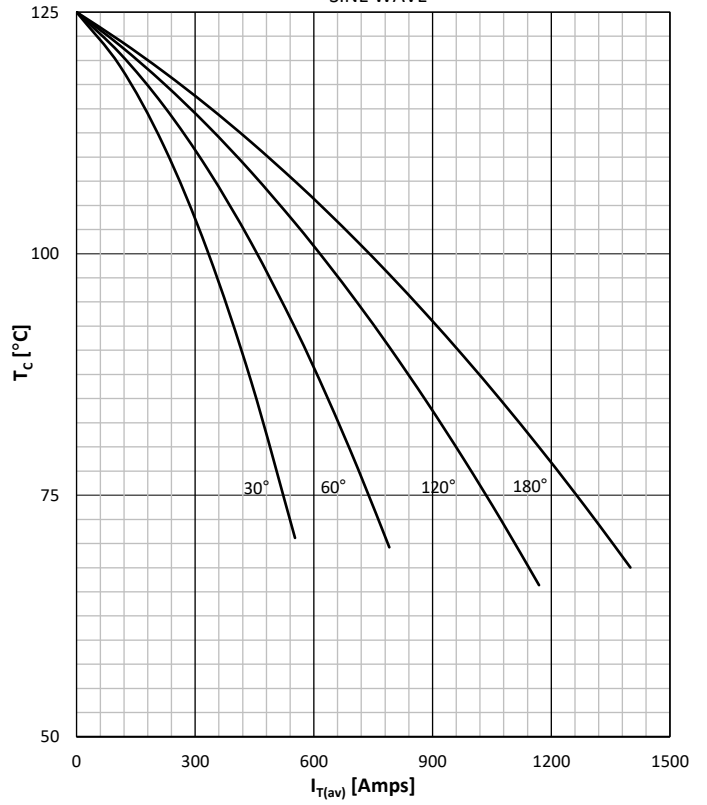
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		125	200 - 800	V
V _{RSM}	Non-repetitive peak reverse voltage		125	300 - 900	V
V _{DRM}	Repetitive peak off-state voltage		125	200 - 800	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	125	80	mA
I _{DRM}	Repetitive peak off-state current	V = V _{DRM}	125	80	mA
CONDUCTING					
I _{T(AV)}	Mean on state current	180° sin ,50 Hz, T _c =67°C, Double side cooled		1400	A
I _{RMS}	RMS on-state current	T _c =67°C, Double side cooled		2198	A
I _{TSM}	Surge on-state current	Sine wave, 10 ms Without reverse voltage	25	26000	A
			125	24400	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	3380 x 10 ³	A ² s
			125	2977 x 10 ³	A ² s
V _T	On-state voltage	On-state current = 3600A	125	1.31	V
V _{T(TO)}	Threshold voltage		125	0.80	V
r _T	On-state slope resistance		125	0.14	mΩ
SWITCHING					
di/dt	Critical rate of rise of on-state current	Non-repetitive, V _D = 80%V _{DRM} , Gate 20V, 20Ω, t _r ≤ 1μs,	125	1000	A/μs
dv/dt	Critical rate of rise of off-state voltage	V _{DR} = 80%V _{DRM}	125	500	V/μs
GATE					
I _{gt}	Gate trigger current	V _D =6V	25	200	mA
V _{gt}	Gate trigger voltage	V _D =6V	25	3.0	V
I _H	Holding current	V _D =6V, gate open circuit	25	600	mA
I _L	Latching current	V _D =6V	25	1000	mA
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.032	°C/W
R _{th(j-c)}	Thermal impedance, rec120°	Junction to case, Double side cooled		0.036	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, Double side cooled		0.006	°C/W
T _j	Max. junction temperature			125	°C
T _{stg}	Storage temperature			-40 125	°C
M	Clamping Force			12 - 15	kN
W	Weight (Approx.)			160	gm

DISSIPATION CHARACTERISTICS

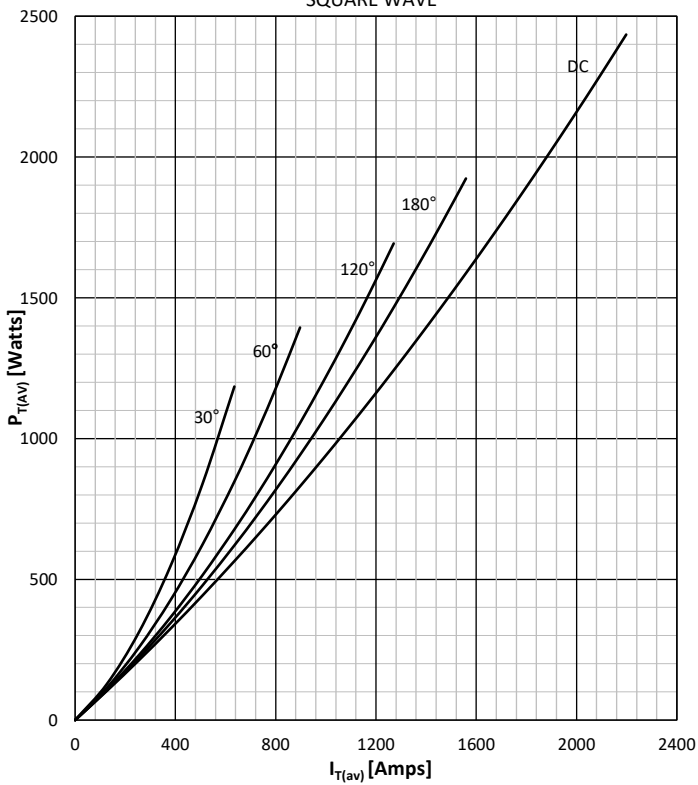
SINE WAVE


ON STATE CURRENT DERATING CURVE

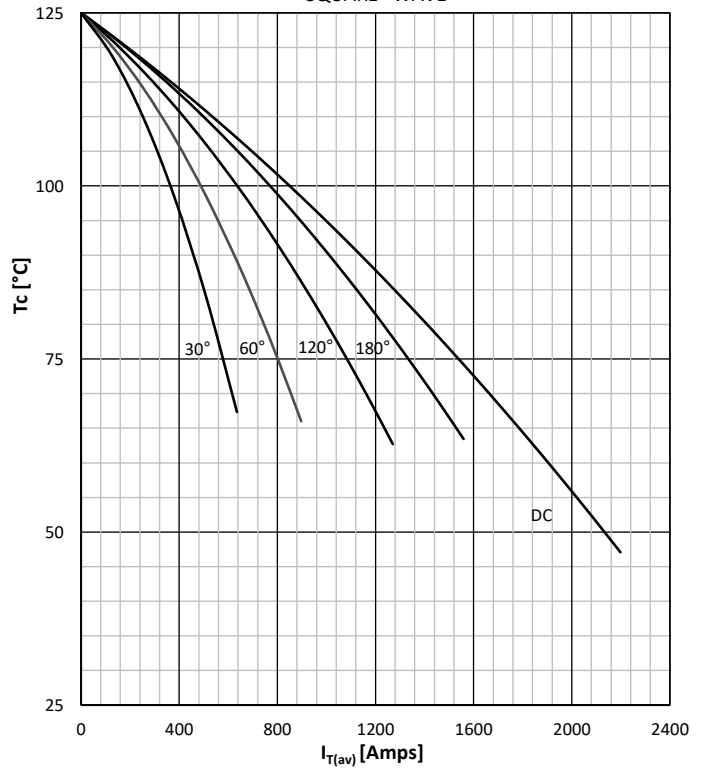
SINE WAVE


DISSIPATION CHARACTERISTICS

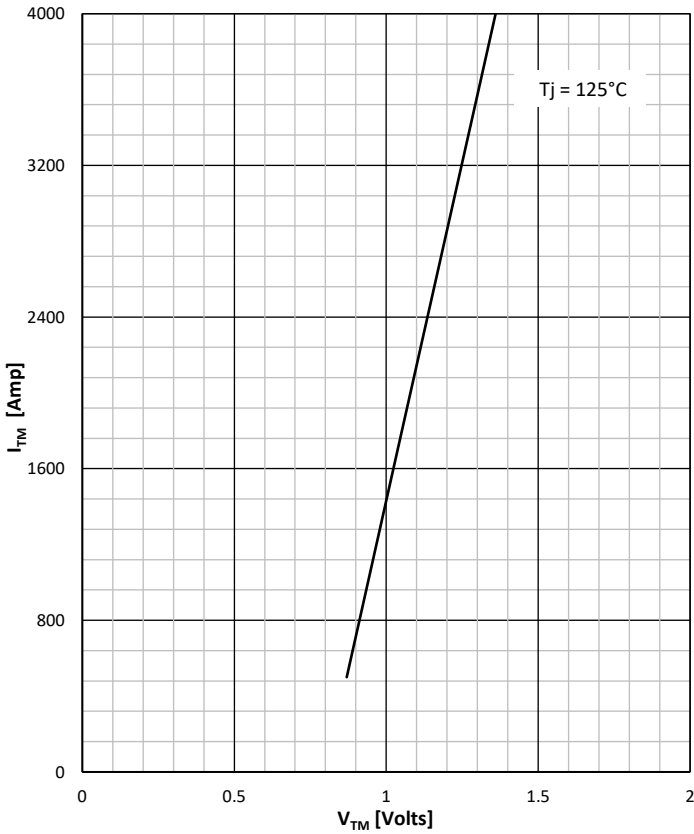
SQUARE WAVE


ON STATE CURRENT DERATING CURVE

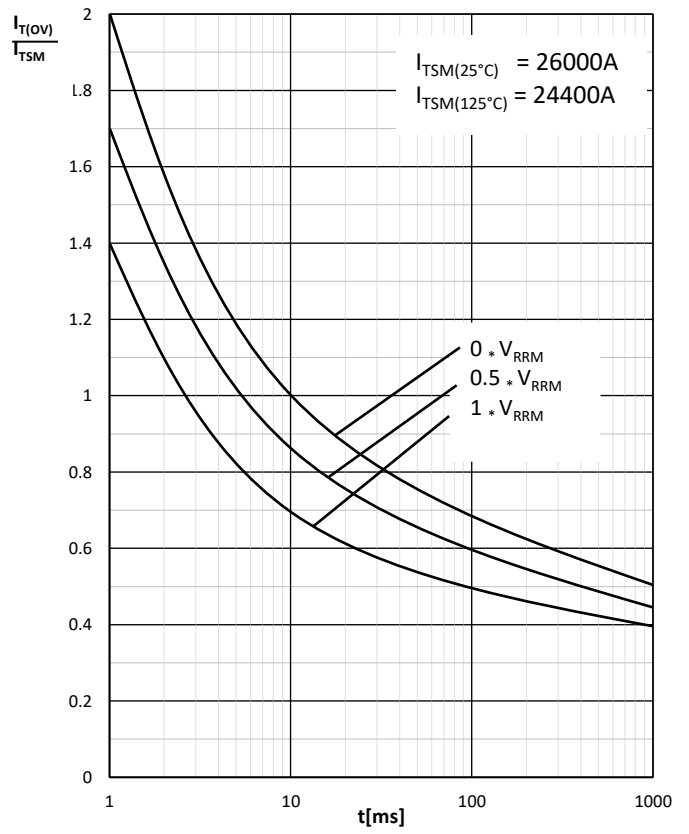
SQUARE WAVE



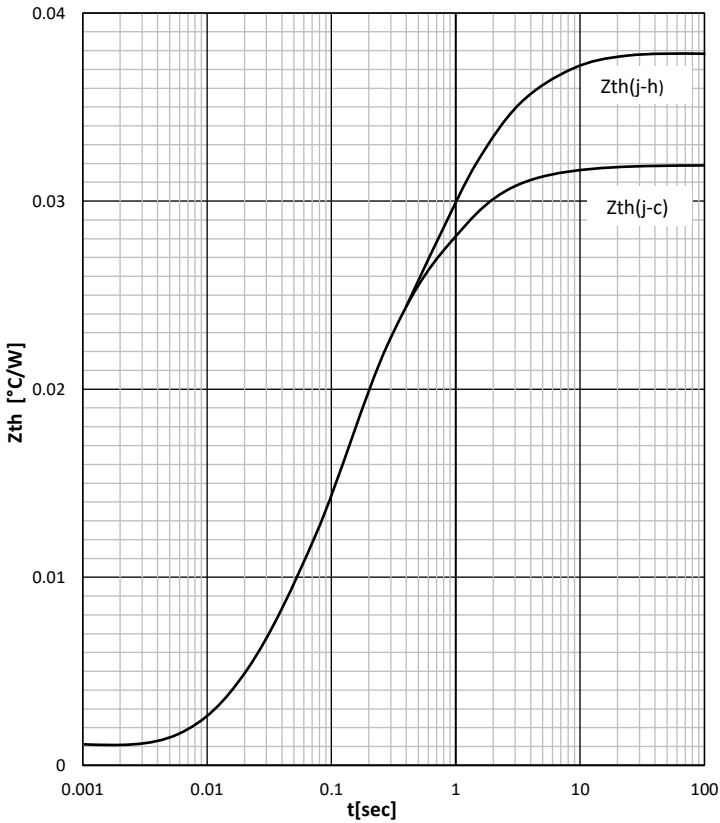
ON STATE CHARACTERISTIC



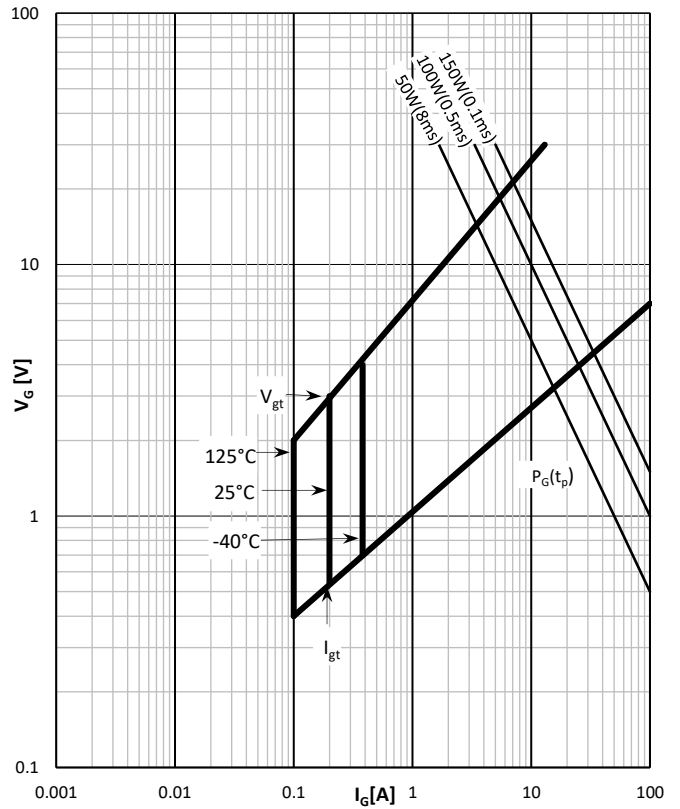
SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



GATE TRIGGER CHARACTERISTICS



Scomes srl reserves the right to change any specification without notice

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