

SCT2571

Power Rectifier Thyristor

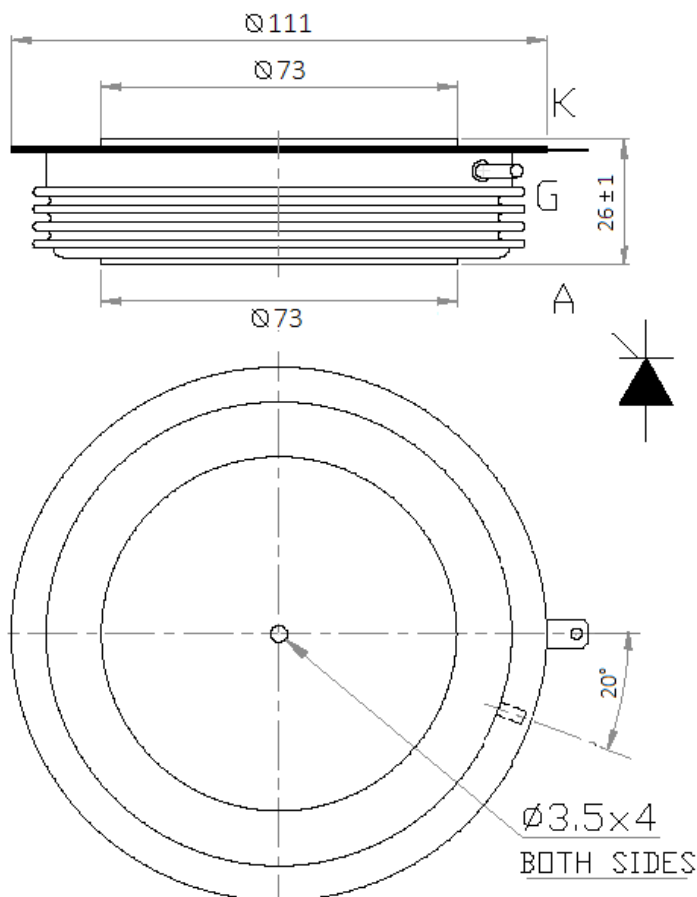


Key Parameters

V_{DRM} / V_{RRM}	= 3600V
$I_{T(AV)}$	= 2571A
I_{TSM}	= 44kA
$V_{T(TO)}$	= 0.78V
r_T	= 0.274m Ω

Features

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



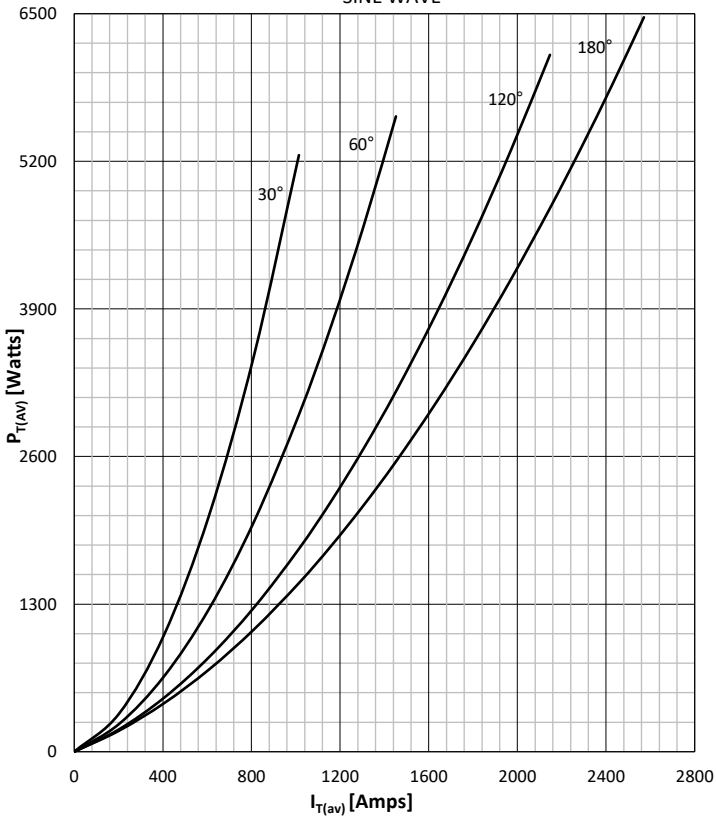
Applications

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

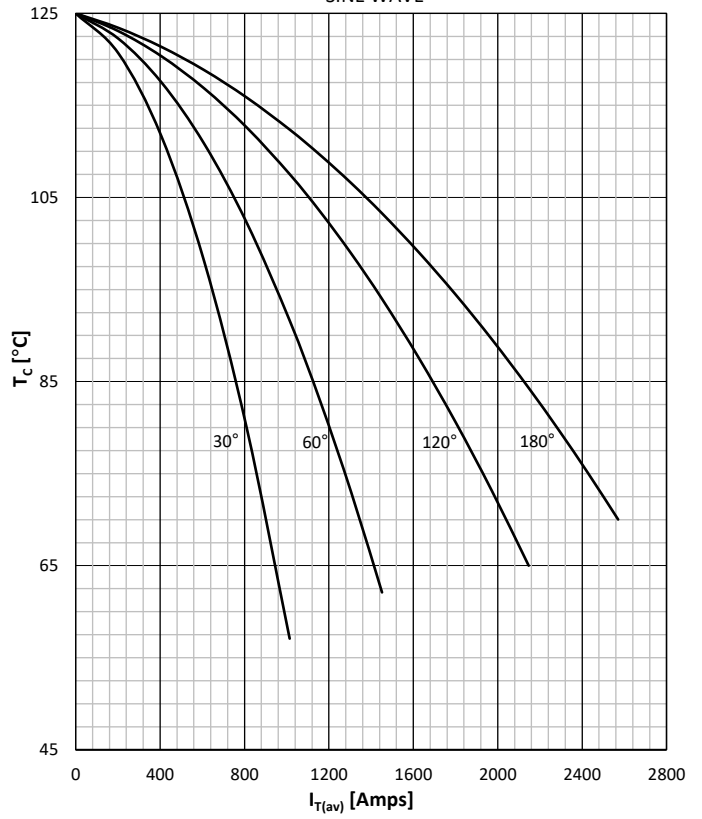
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		125	2800 - 3600	V
V _{RSM}	Non-repetitive peak reverse voltage		125	2900 - 3700	V
V _{DRM}	Repetitive peak off-state voltage		125	2800 - 3600	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	125	250	mA
I _{DRM}	Repetitive peak off-state current	V = V _{DRM}	125	250	mA
CONDUCTING					
I _{T(AV)}	Mean on state current	180° sin ,50 Hz, T _c =70°C, Double side cooled		2571	A
I _{RMS}	RMS on-state current	T _c =70°C, Double side cooled		4036	A
I _{TSM}	Surge on-state current	Sine wave, 10 ms Without reverse voltage	25	44000	A
			125	40000	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	9680 x 10 ³	A ² s
			125	8000 x 10 ³	A ² s
V _T	On-state voltage	On-state current = 3000A	125	1.60	V
V _{T(TO)}	Threshold voltage		125	0.78	V
r _T	On-state slope resistance		125	0.274	mΩ
SWITCHING					
di/dt	Critical rate of rise of on-state current	V _D = 67%V _{DRM} , I _{TM} =1000A, I _{FG} =2A, tr≤0.5μs	125	150	A/μs
dv/dt	Critical rate of rise of off-state voltage	V _{DR} = 80%V _{DRM}	125	1000	V/μs
GATE					
I _{gt}	Gate trigger current	V _D =6V	25	250	mA
V _{gt}	Gate trigger voltage	V _D =6V	25	3.0	V
I _H	Holding current	V _D =6V, gate open circuit	25	800	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		0.0085	°C/W
R _{th(j-c)}	Thermal impedance, rec120°	Junction to case, Double side cooled		0.0098	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, Double side cooled		0.0025	°C/W
T _j	Max. junction temperature			125	°C
T _{stg}	Storage temperature			-40 125	°C
M	Clamping Force			40 - 45	kN
W	Weight (Approx.)			1200	gm

DISSIPATION CHARACTERISTICS

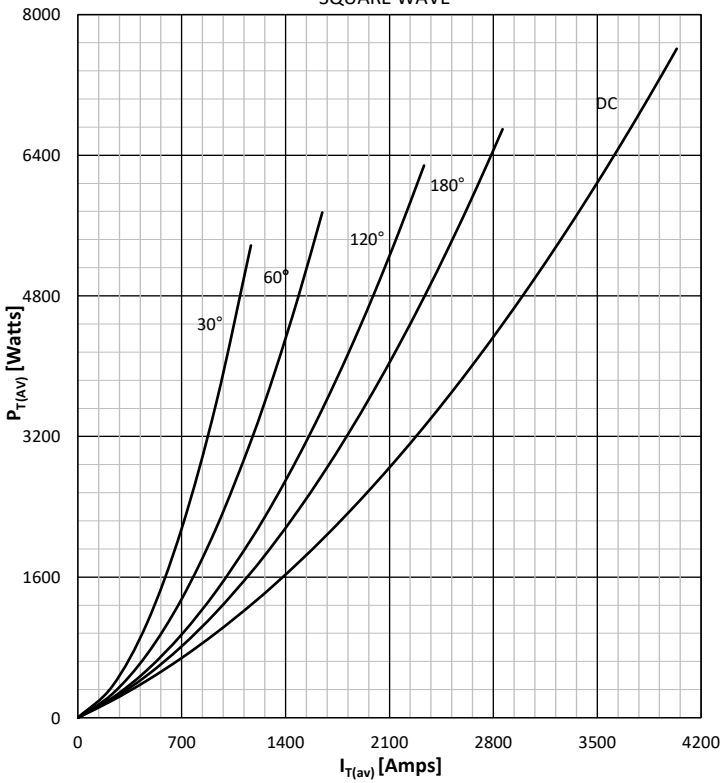
SINE WAVE


ON STATE CURRENT DERATING CURVE

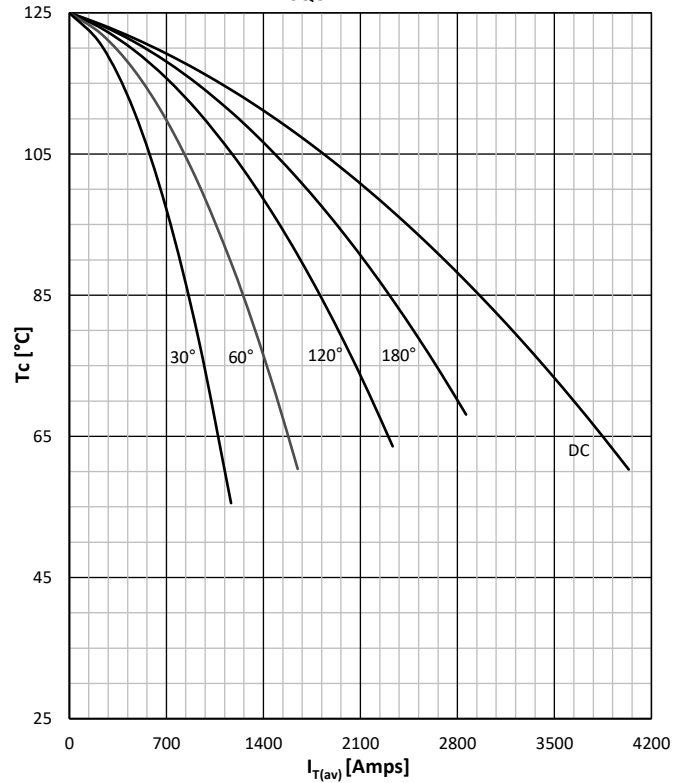
SINE WAVE


DISSIPATION CHARACTERISTICS

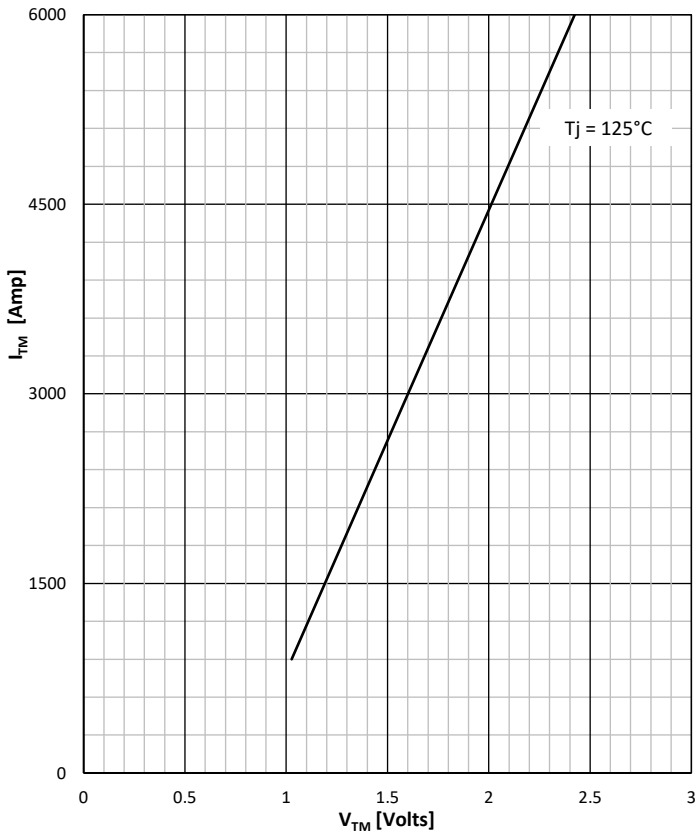
SQUARE WAVE


ON STATE CURRENT DERATING CURVE

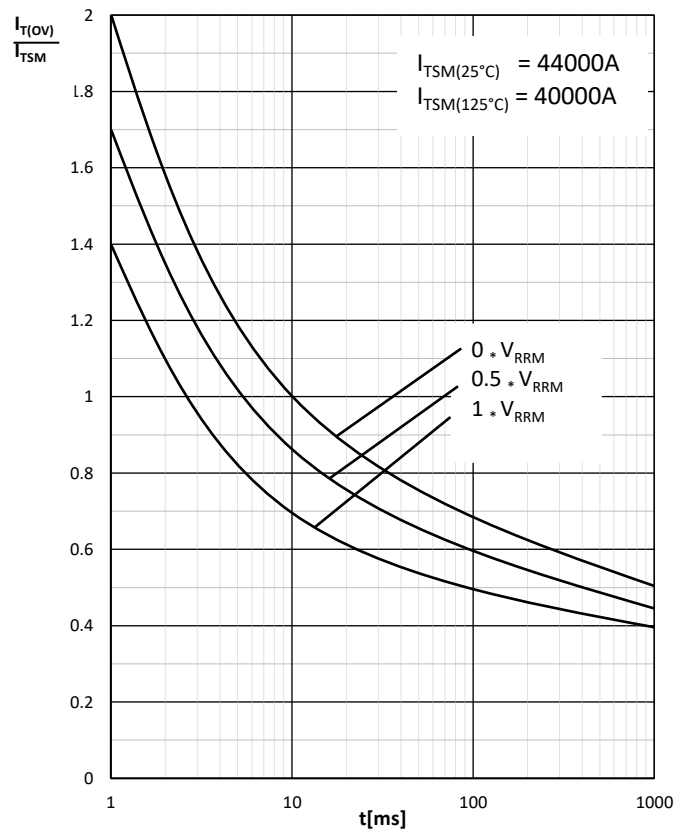
SQUARE WAVE



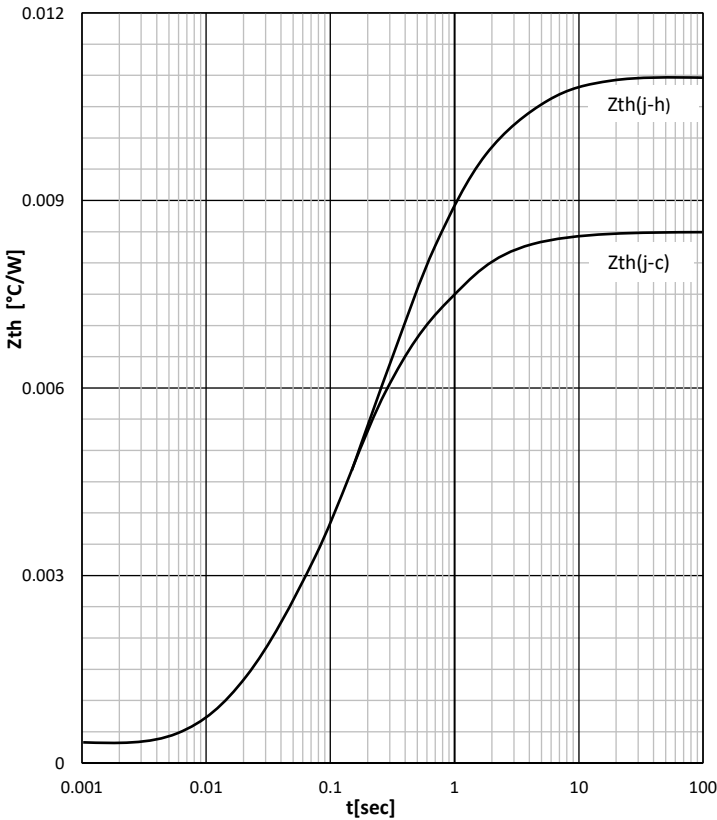
ON STATE CHARACTERISTIC



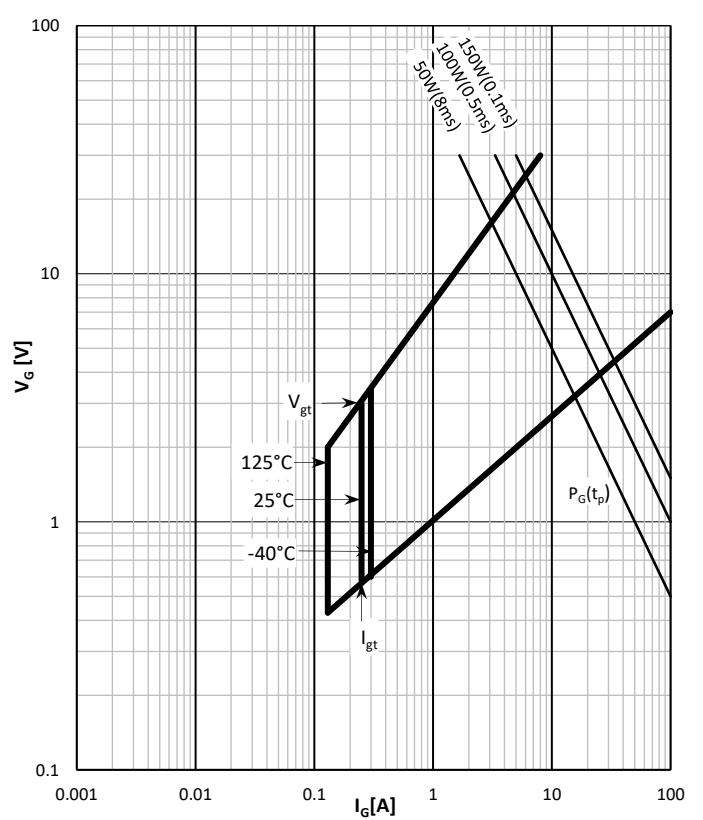
SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



GATE TRIGGER CHARACTERISTICS



Scomes srl reserves the right to change any specification without notice

issue:jul-2020