



SCOMES

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SCD404



Power Rectifier Diodes

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers

Features

- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Threaded Stud

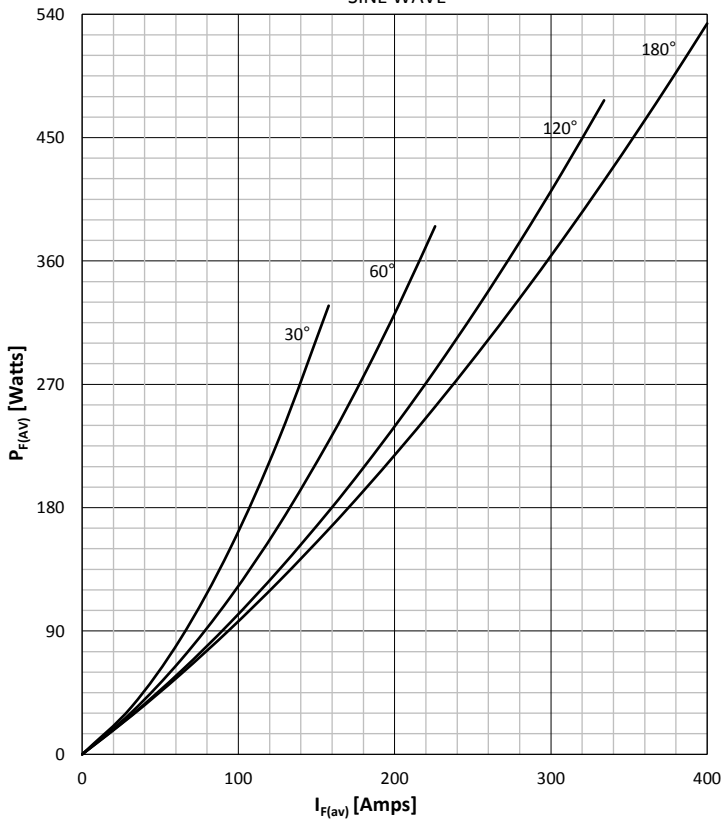
Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 400A
I_{FSM}	= 9250A
$V_{F(TO)}$	= 0.85V
r_F	= 0.49mΩ

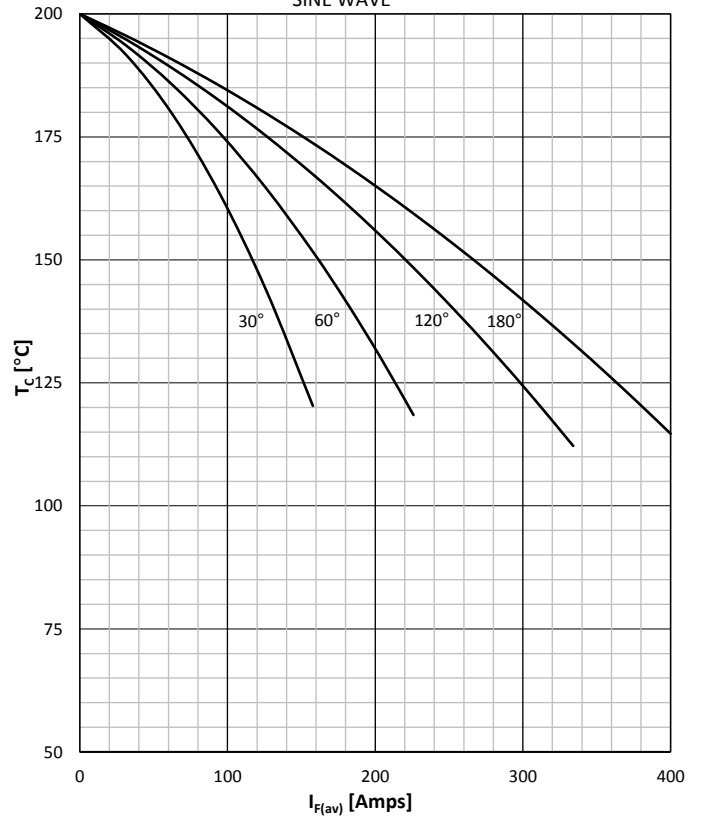
Symbol	Characteristic	Conditions	T_j [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		200	200 - 1800	V
V_{RSM}	Non-repetitive peak reverse voltage		200	300 - 1900	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	200	15	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, $T_c=115^\circ\text{C}$		400	A
I_{FRMS}	RMS current	$T_c=115^\circ\text{C}$		628	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	9250	A
			200	8250	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	427×10^3	A^2s
			200	340×10^3	A^2s
V_F	Forward voltage	On-state current = 1500A	200	1.62	V
$V_{F(TO)}$	Threshold voltage		200	0.85	V
r_F	Forward slope resistance		200	0.49	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case		0.16	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink		0.04	°C/W
T_j	Max. junction temperature			200	°C
T_{stg}	Storage temperature			-40 200	°C
M	Mounting torque			26	NM
W	Weight (Approx.)			250	gm

DISSIPATION CHARACTERISTICS

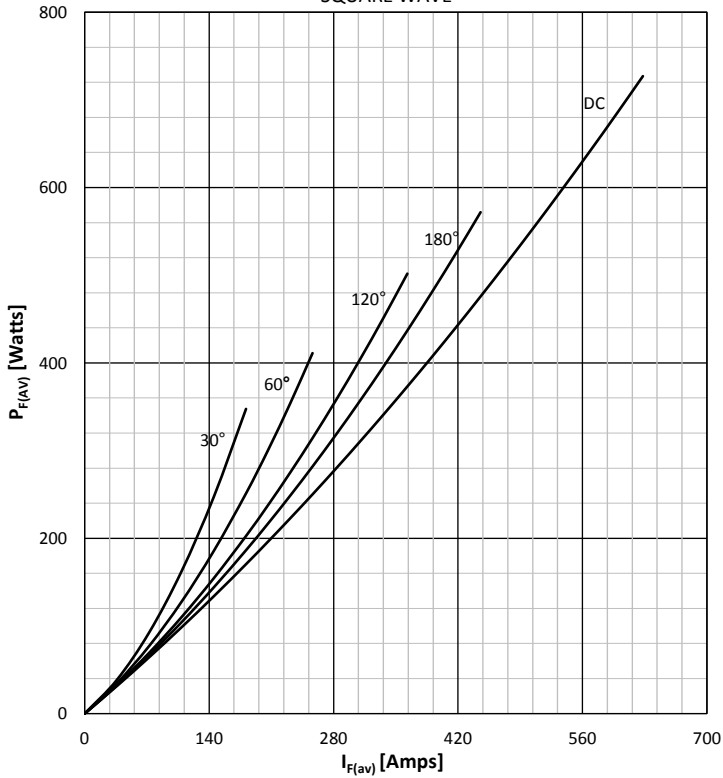
SINE WAVE


FORWARD CURRENT DERATING CURVE

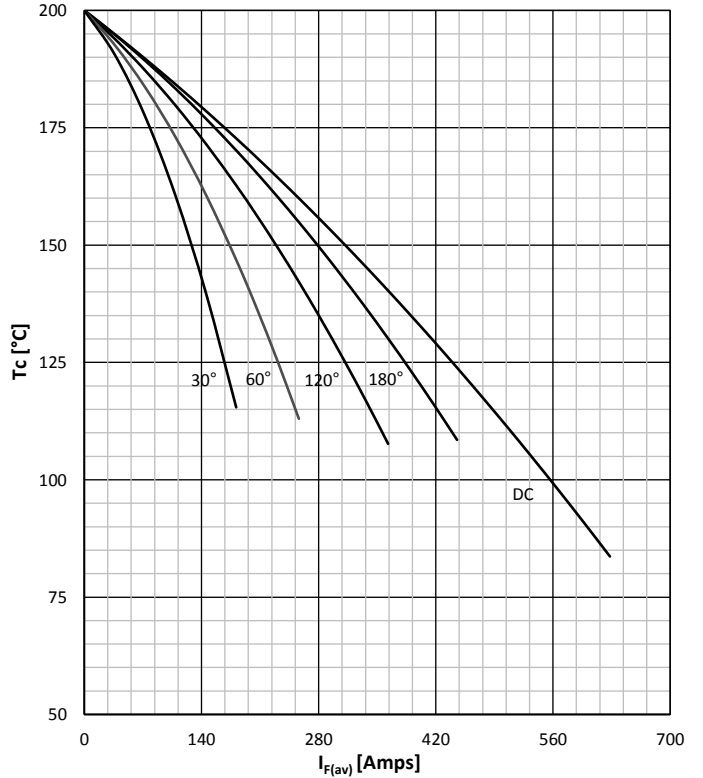
SINE WAVE


DISSIPATION CHARACTERISTICS

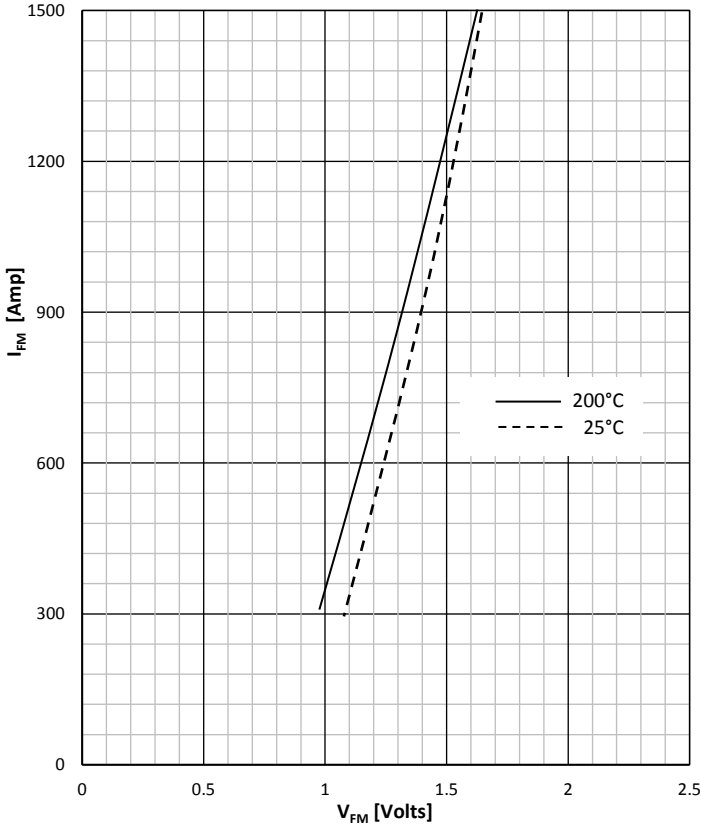
SQUARE WAVE


FORWARD CURRENT DERATING CURVE

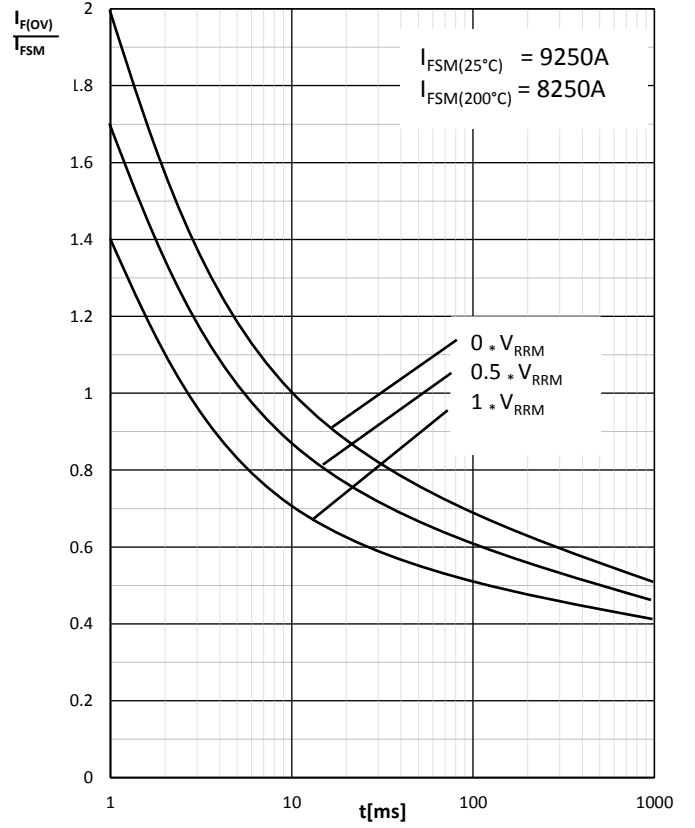
SQUARE WAVE



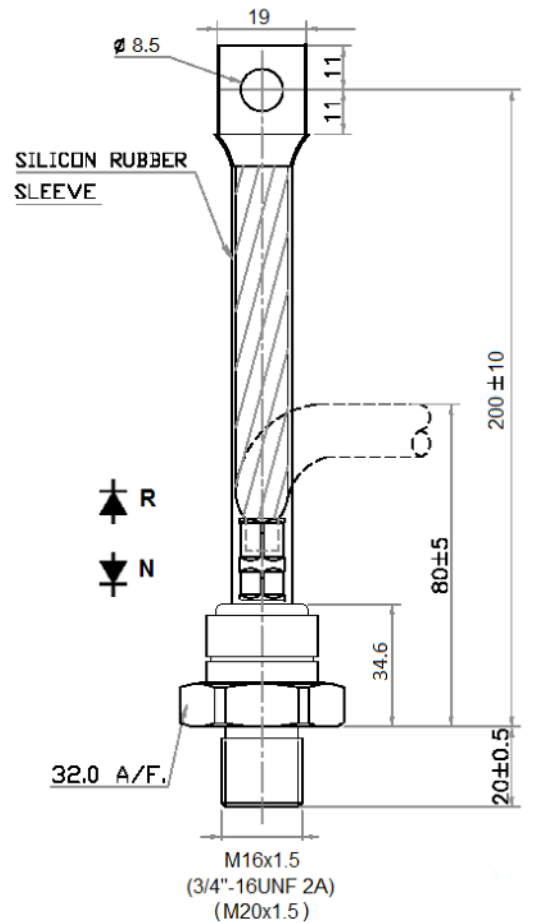
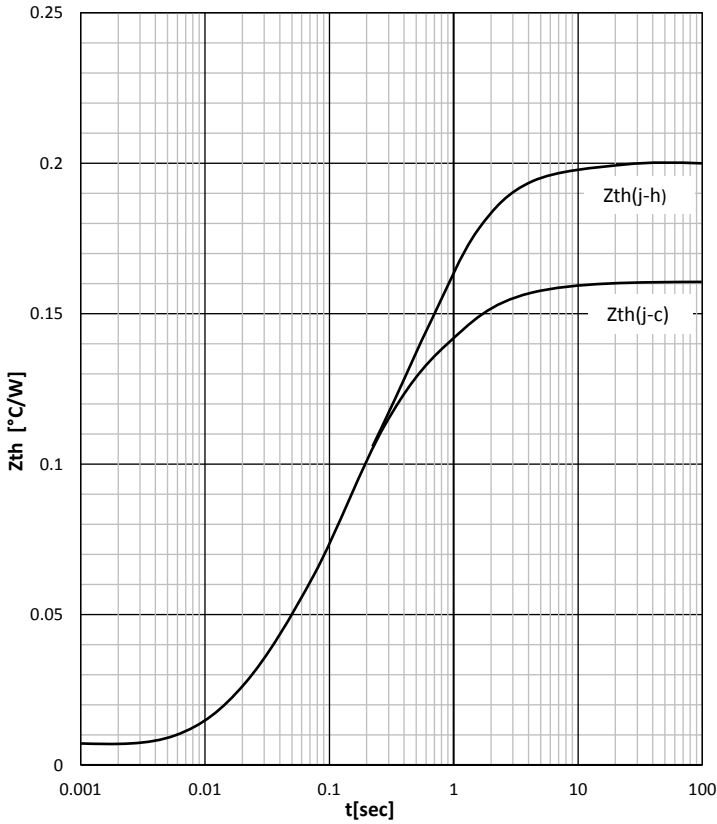
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



Scomes srl reserves the right to change any specification without notice

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