SCOMES

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SCD6500

Power Rectifier Diodes

Features

- Full blocking capability over wide temperature range
- Hermetically sealed ceramic package
- High case non-rupture current

Applications

- Uncontrolled Rectifiers
- Welding

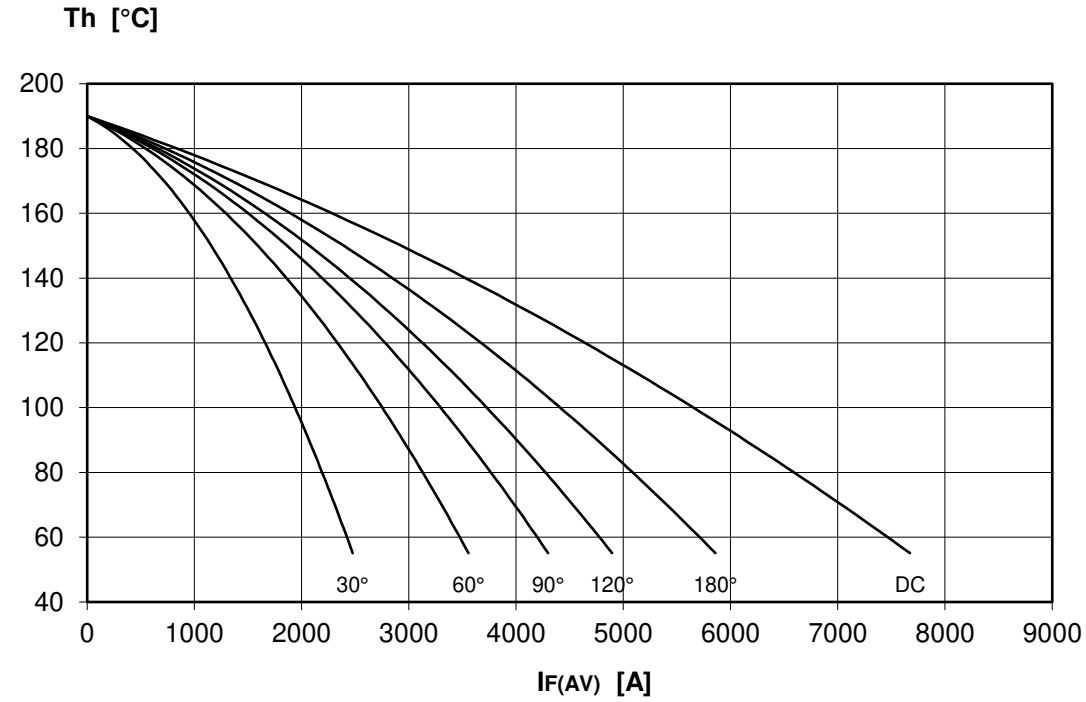
Key Parameters

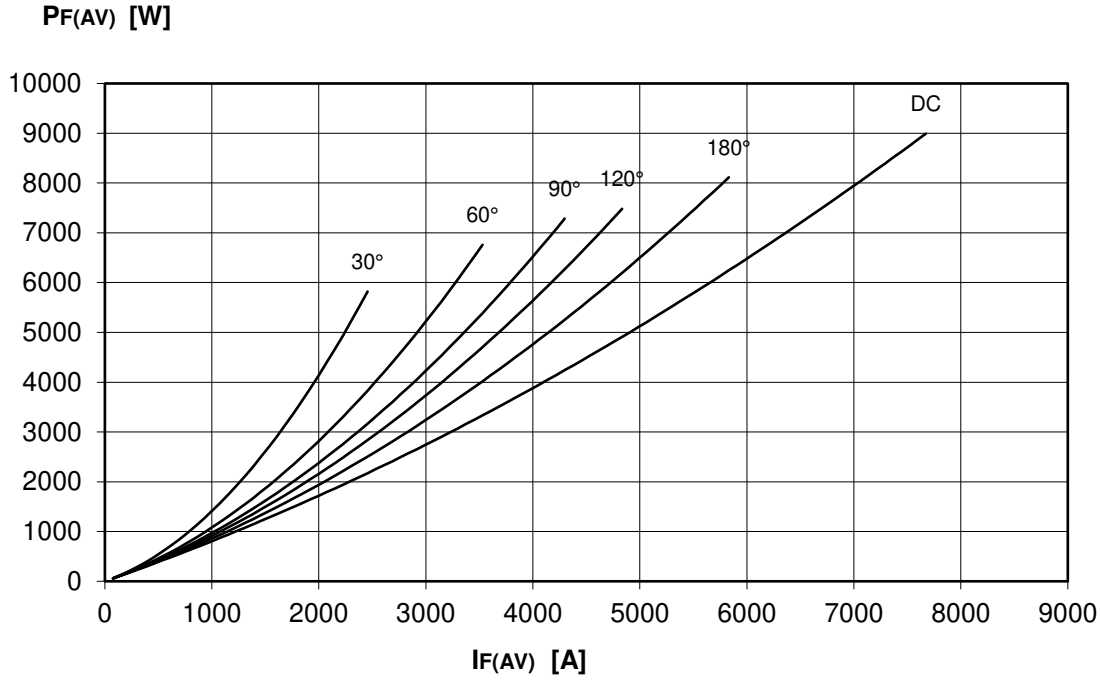
V_{RRM} = 1000V
$I_{F(AV)}$ = 5836A
I_{FSM} = 50400A
$V_{F(TO)}$ = 0.75V
r_F = 0.055mΩ

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		190	1000	V
V_{RSM}	Non-repetitive peak reverse voltage		190	1100	V
I_{RRM}	Repetitive peak reverse current	V=VRRM	190	75	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin, 50 Hz, Th=55°C, double side cooled		5836	A
$I_{F(AV)}$	Mean forward current	180° sin, 50 Hz, Tc=85°C, double side cooled		6457	A
I_{FSM}	Surge forward current	Sine wave, 10 ms without reverse voltage	190	50,4	kA
I^2t	I^2t			12701 x 10^3	A^2s
V_{FM}	Forward voltage	Forward current = 4500 A	25	1,16	V
$V_{F(TO)}$	Threshold voltage		190	0,75	V
r_F	Forward slope resistance		190	0,055	mohm
SWITCHING					
t_{rr}	Reverse recovery time		190		µs
Q_{rr}	Reverse recovery charge				µC
I_{rr}	Peak reverse recovery current				A
MOUNTING					
$R_{th(j-h)}$	Thermal impedance, DC	Junction to heatsink, double side cooled		15,0	°C/kW
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		5,0	°C/kW
T_j	Operating junction temperature			-30 / 190	°C
F	Mounting force			22.0 / 24.5	kN
	Mass			200	g

DISSIPATION CHARACTERISTICS

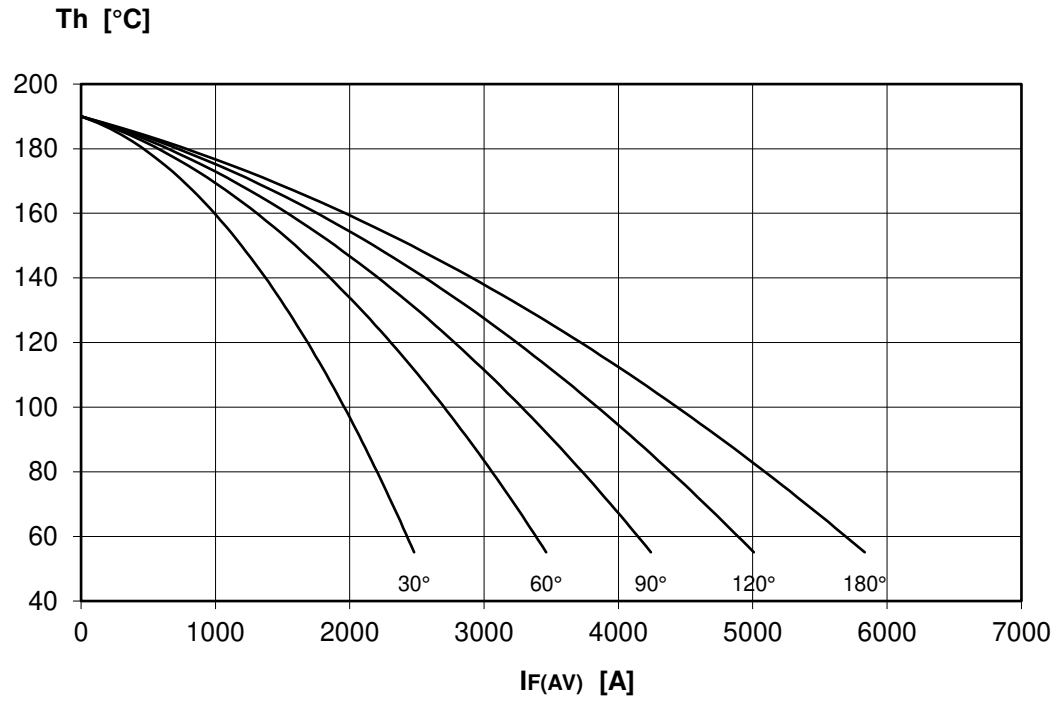
SQUARE WAVE

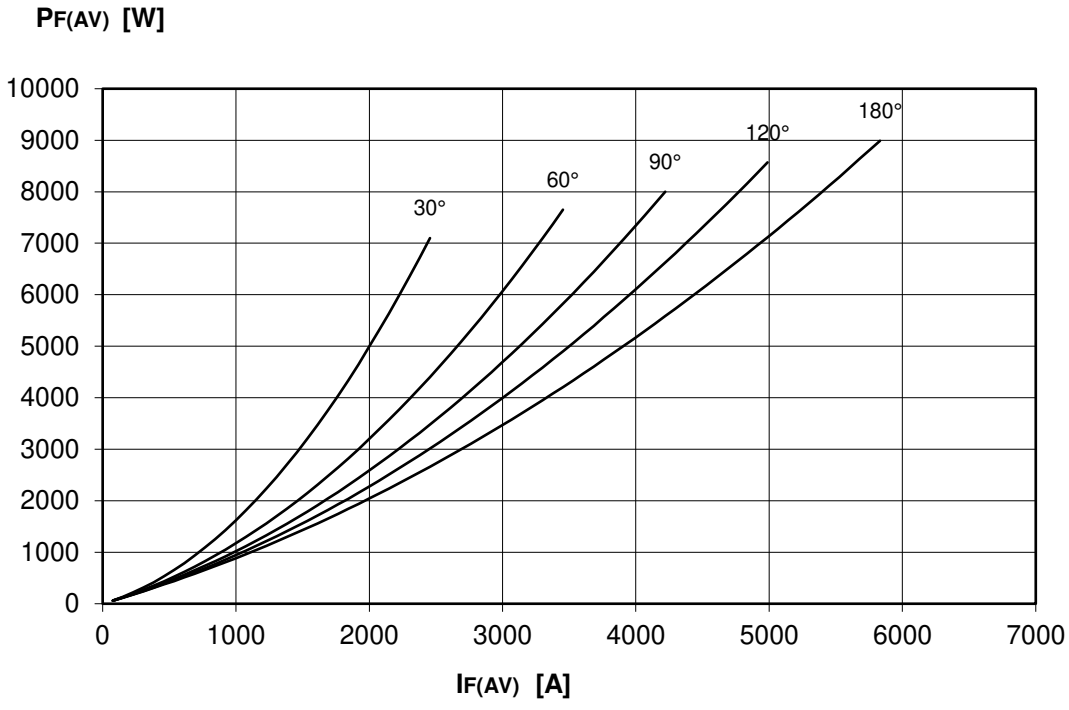




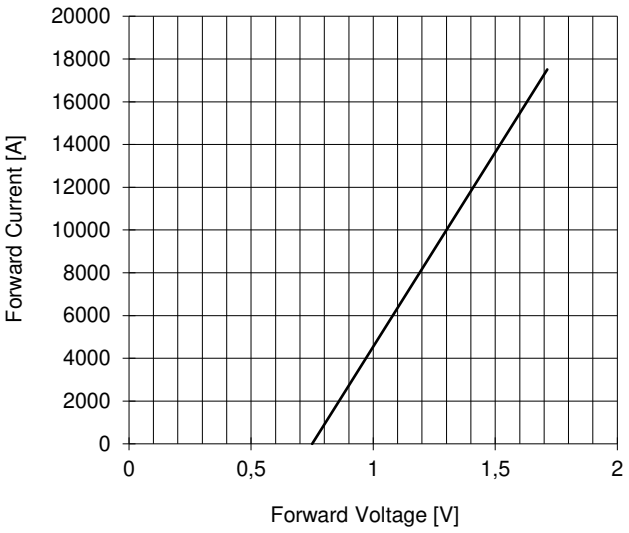
DISSIPATION CHARACTERISTICS

SINE WAVE

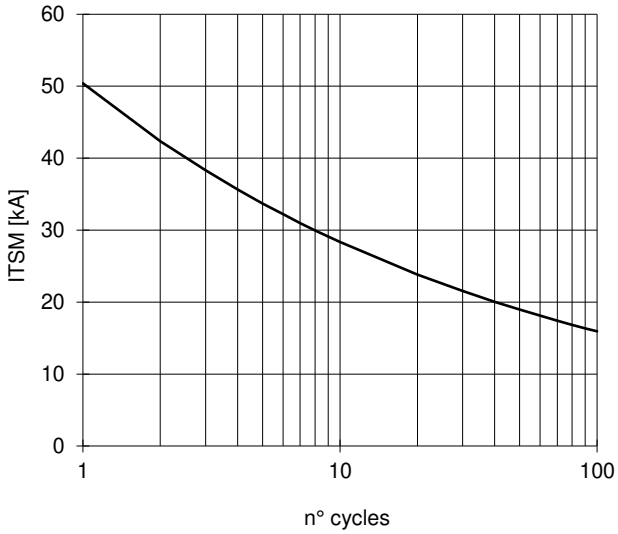




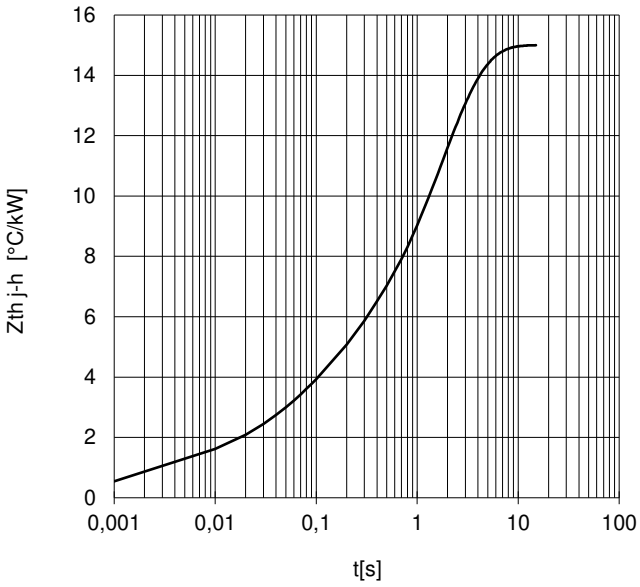
FORWARD CHARACTERISTIC
Tj = 190 °C

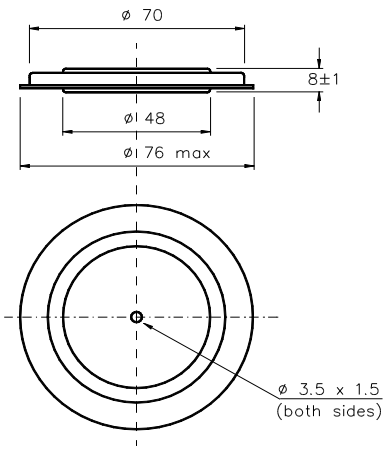


SURGE CHARACTERISTIC
Tj = 190 °C



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED





Scomes srl reserves the right to change any specification without notice

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