

SCD735



Power Rectifier Diodes

Features

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

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Welding
- Induction Heating / Melting

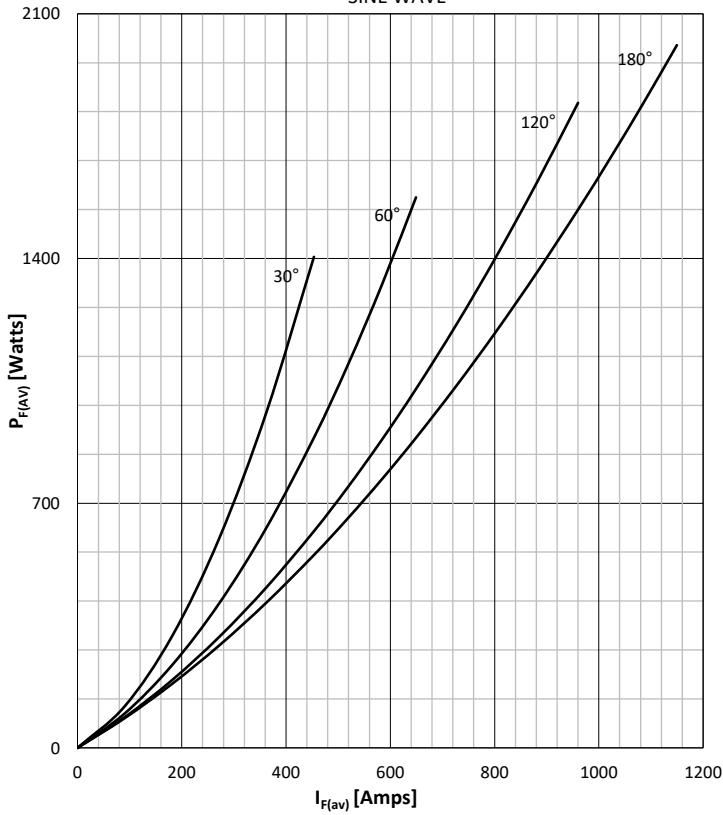
Key Parameters

V_{RRM}	= 600V
$I_{F(AV)}$	= 1150A
I_{FSM}	= 12000A
$V_{F(TO)}$	= 0.87V
r_F	= 0.31mΩ

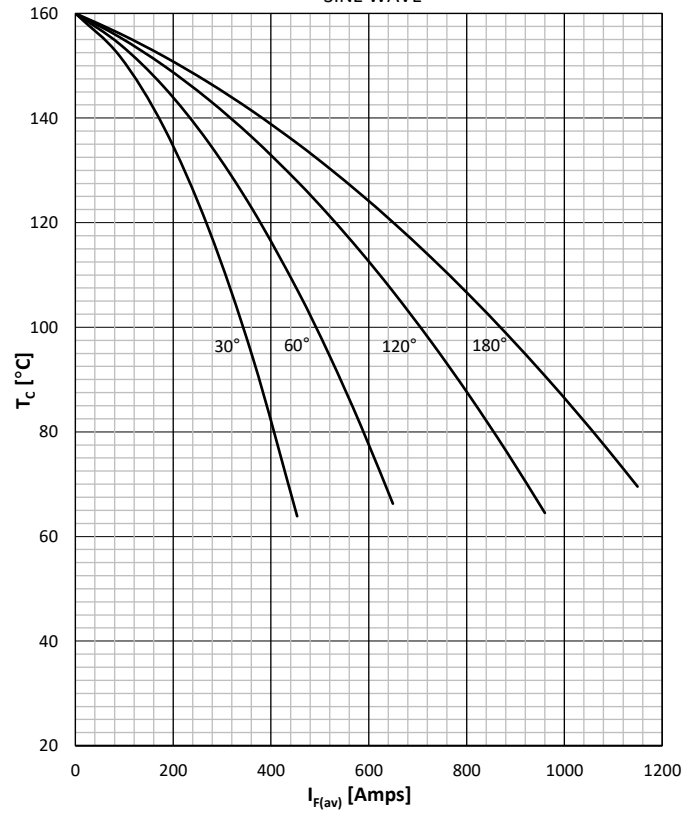
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		160	200 - 600	V
V_{RSM}	Non-repetitive peak reverse voltage		160	200 - 600	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	160	50	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin, 50 Hz, T _c =69°C, double side cooled		1150	A
I_{FRMS}	RMS current	T _c =69°C, double side cooled		1805	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	12000	A
			160	11000	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	720 x 10 ³	A ² s
			160	605 x 10 ³	A ² s
V_F	Forward voltage	On-state current = 3000A	160	1.80	V
$V_{F(TO)}$	Threshold voltage		160	0.87	V
r_F	Forward slope resistance		160	0.31	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, double side cooled		0.045	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		0.015	°C/W
T_j	Max. junction temperature			160	°C
T_{stg}	Storage temperature			-40 160	°C
M	Clamping force			12	KN
W	Weight (Approx.)			120	gm

DISSIPATION CHARACTERISTICS

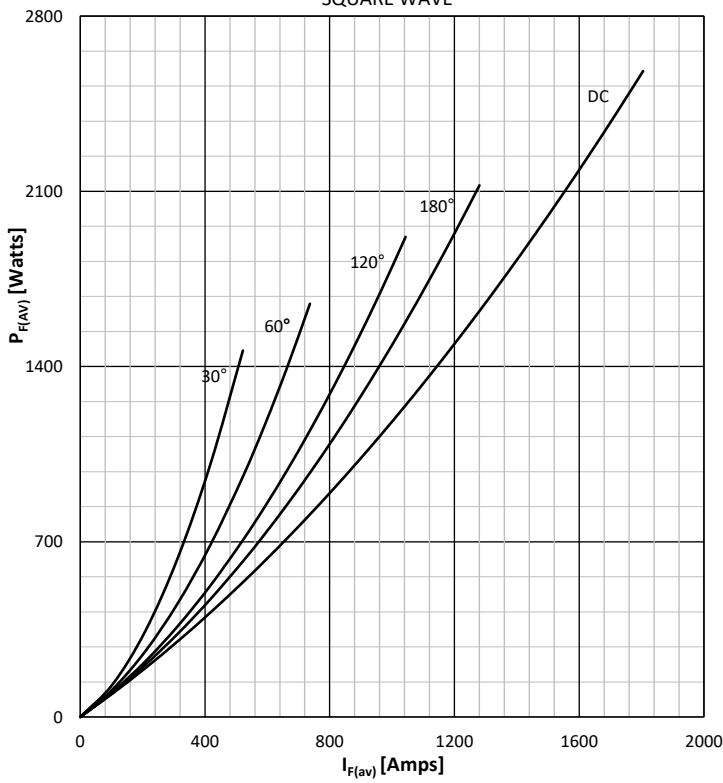
SINE WAVE


FORWARD CURRENT DERATING CURVE

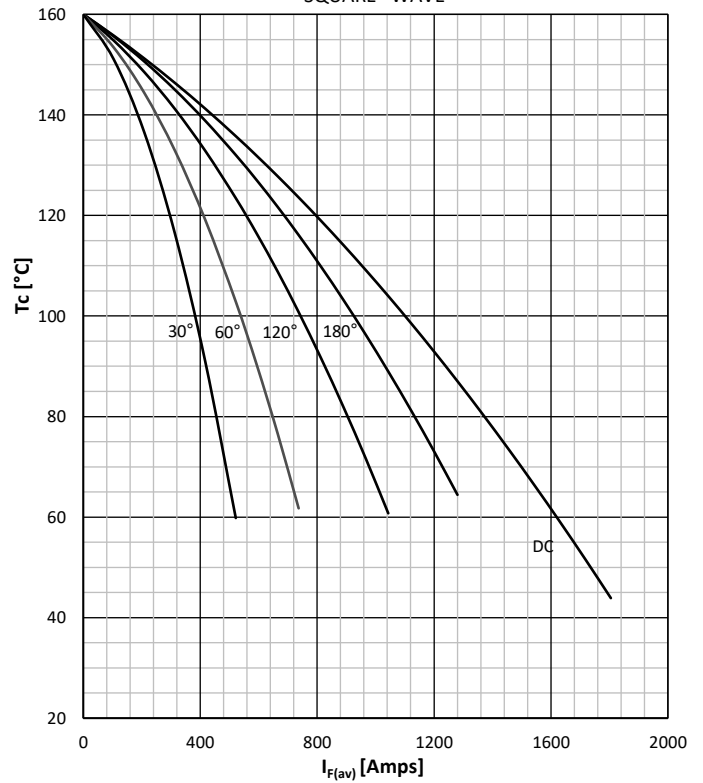
SINE WAVE


DISSIPATION CHARACTERISTICS

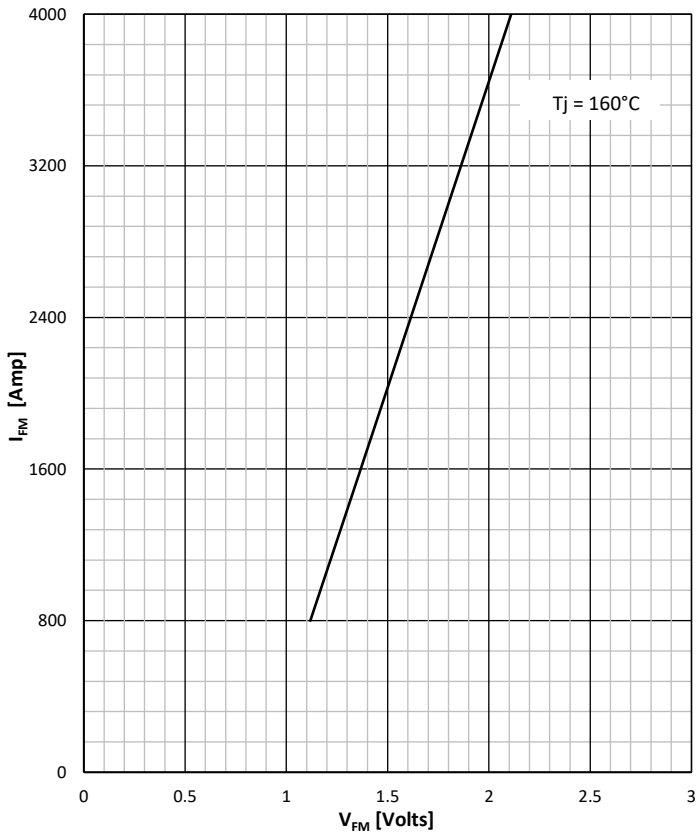
SQUARE WAVE


FORWARD CURRENT DERATING CURVE

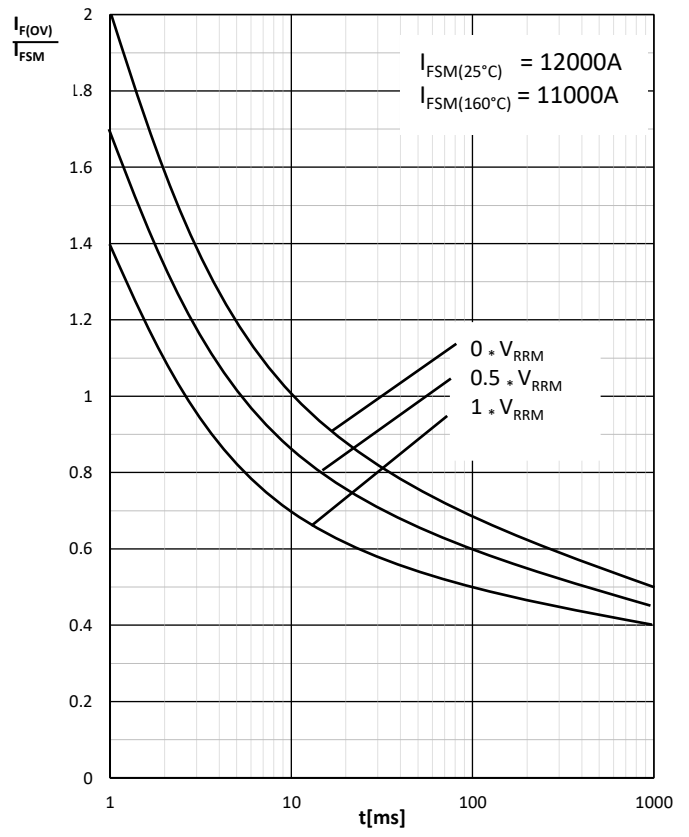
SQUARE WAVE



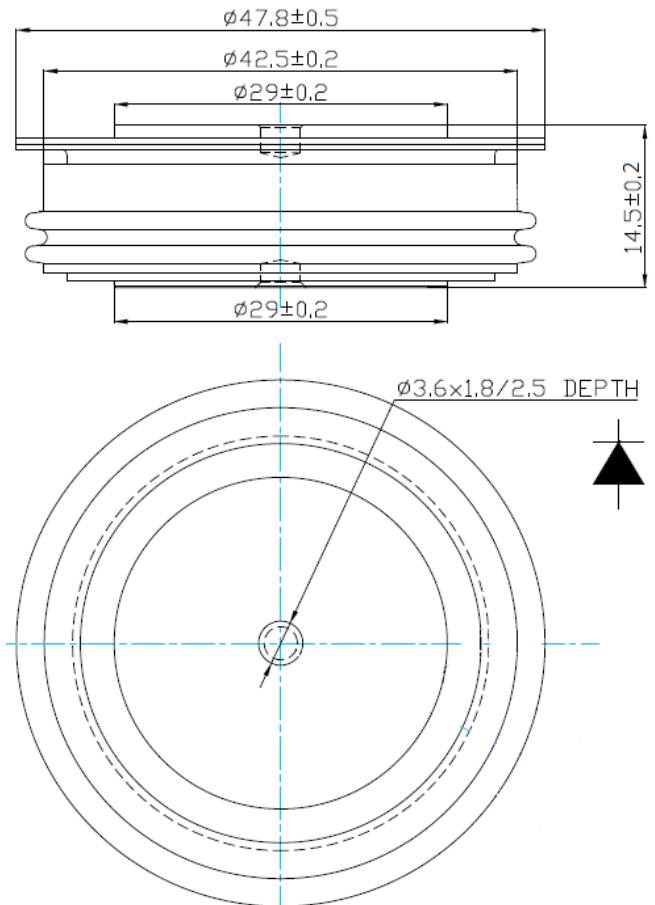
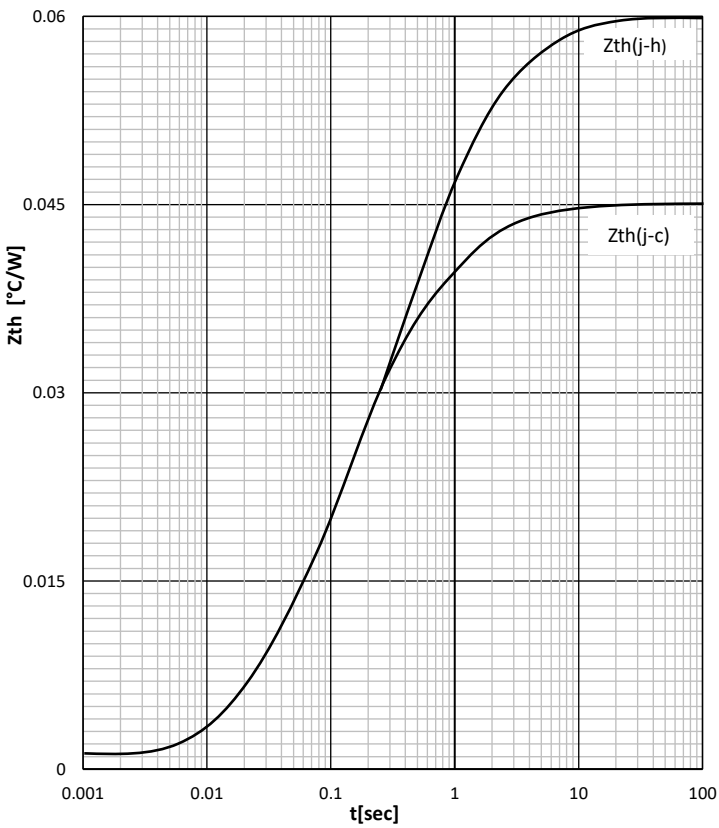
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



Scomes srl reserves the right to change any specification without notice

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