SCOMES

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SCD45

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

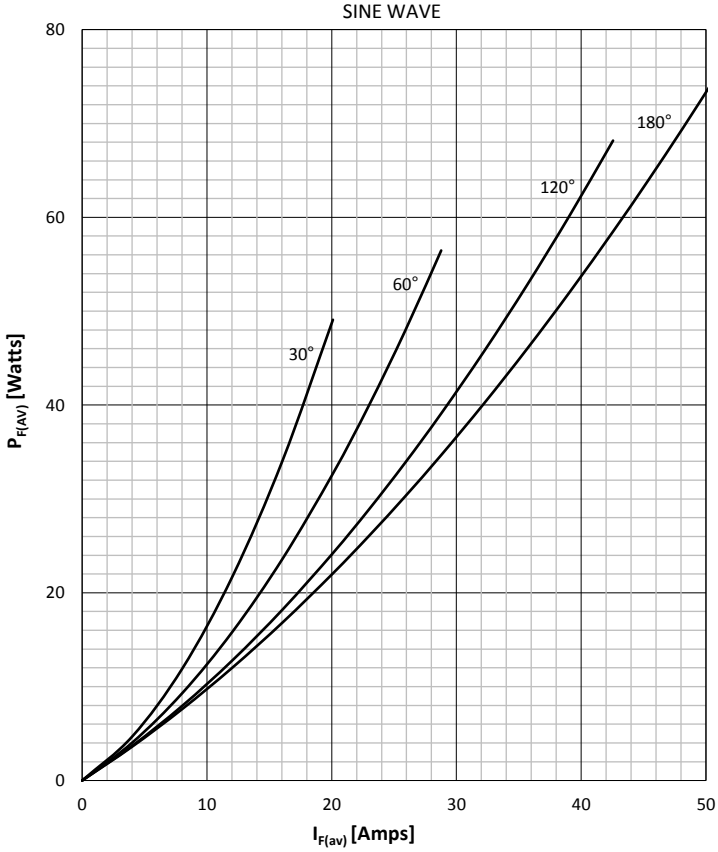
Key Parameters

V_{RRM}	= 1600V
$I_{F(AV)}$	= 50A
I_{FSM}	= 700A
$V_{F(TO)}$	= 0.85V
r_F	= 5.0mΩ

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		180	200 - 1600	V
V_{RSM}	Non-repetitive peak reverse voltage		180	300 - 1700	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	180	5	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, T_c=115°C T_c=125°C		50 45	A
I_{FRMS}	RMS current			80	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	700	A
			180	600	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	2450	A^2s
			180	1800	A^2s
V_F	Forward voltage	On-state current = 150A	180	1.60	V
$V_{F(TO)}$	Threshold voltage		180	0.85	V
r_F	Forward slope resistance		180	5.0	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case		0.85	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink		0.25	°C/W
T_j	Max. junction temperature			180	°C
T_{stg}	Storage temperature			-40 180	°C
M	Mounting torque			4	NM
W	Weight (Approx.)			40	gm

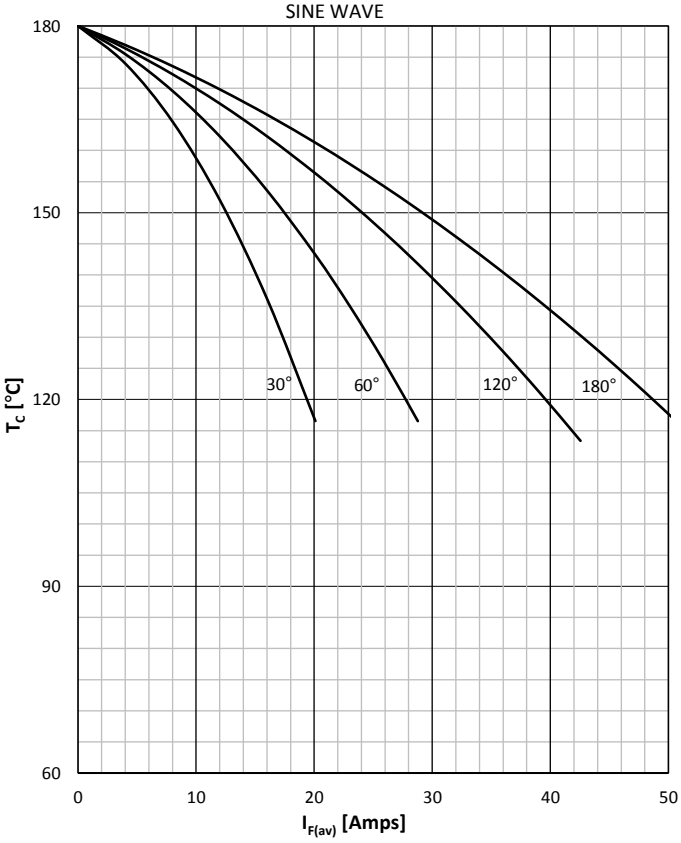
DISSIPATION CHARACTERISTICS

SINE WAVE



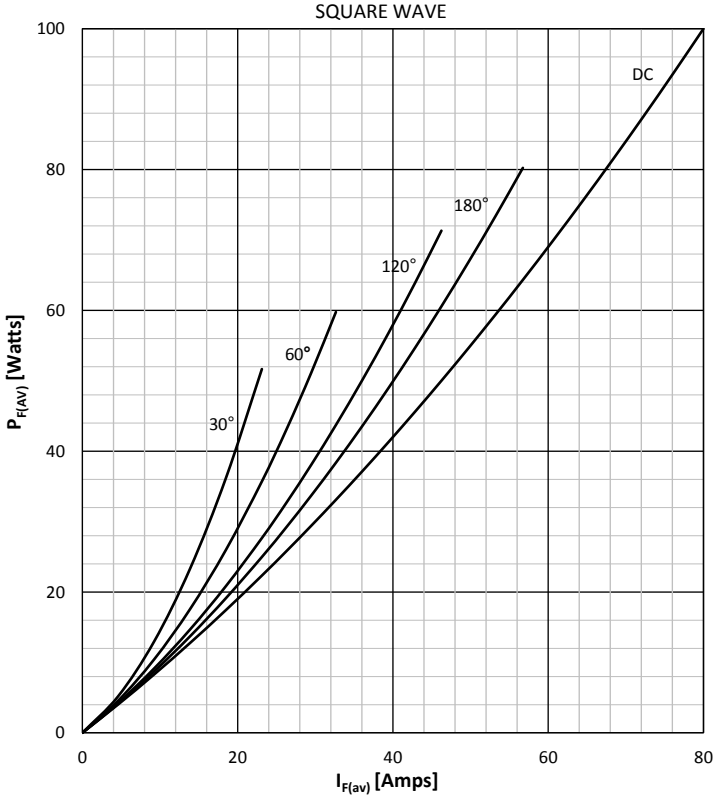
FORWARD CURRENT DERATING CURVE

SINE WAVE



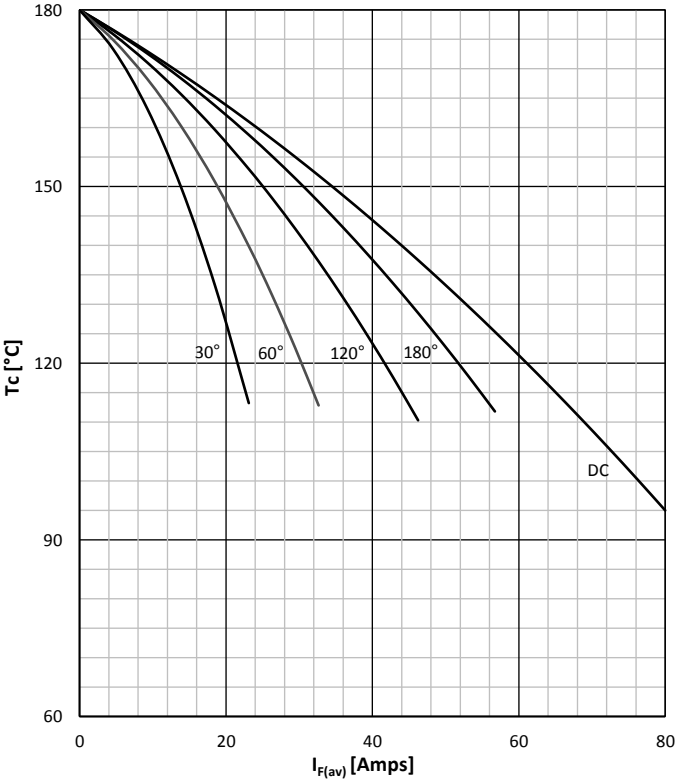
DISSIPATION CHARACTERISTICS

SQUARE WAVE

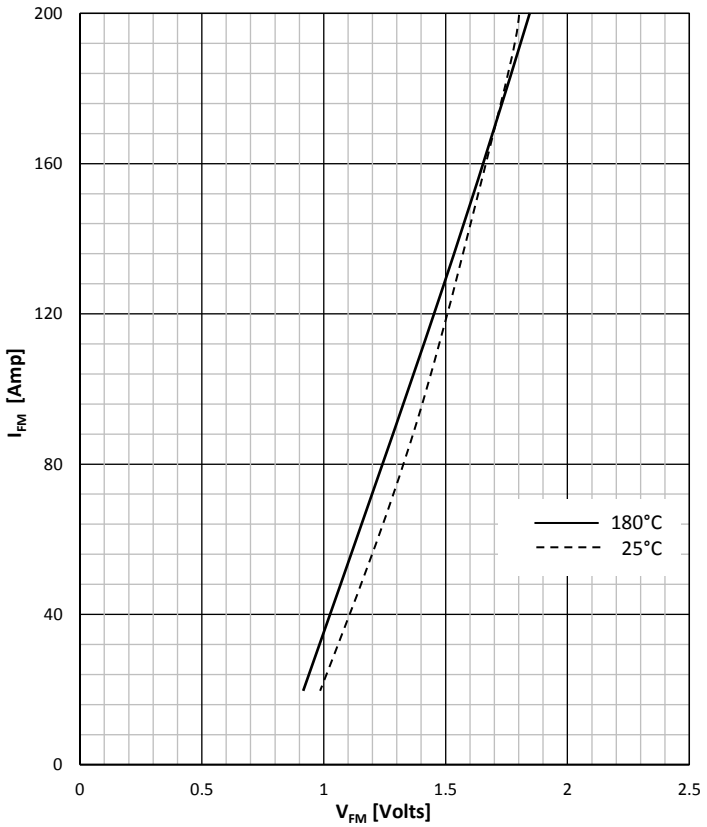


FORWARD CURRENT DERATING CURVE

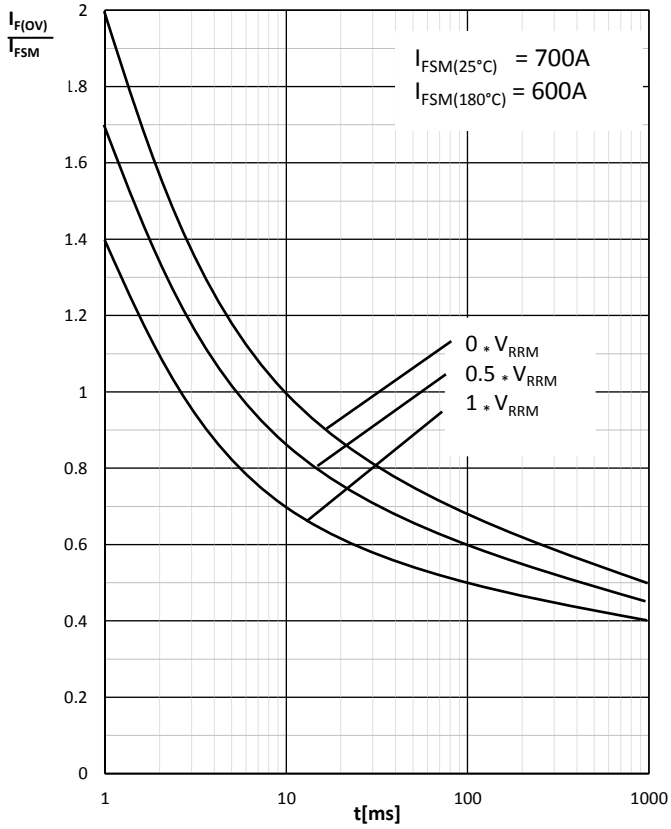
SQUARE WAVE



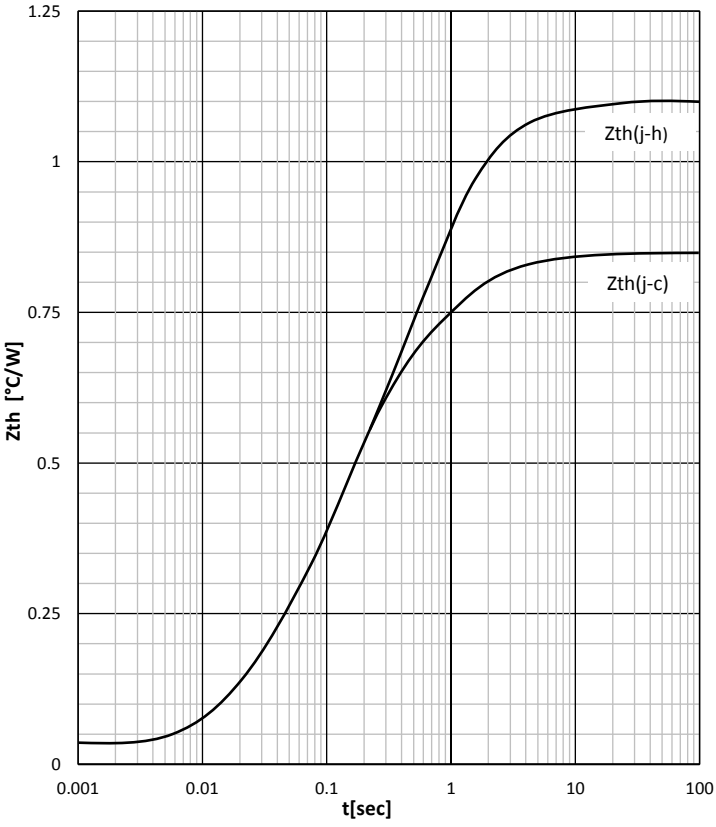
FORWARD CHARACTERISTIC

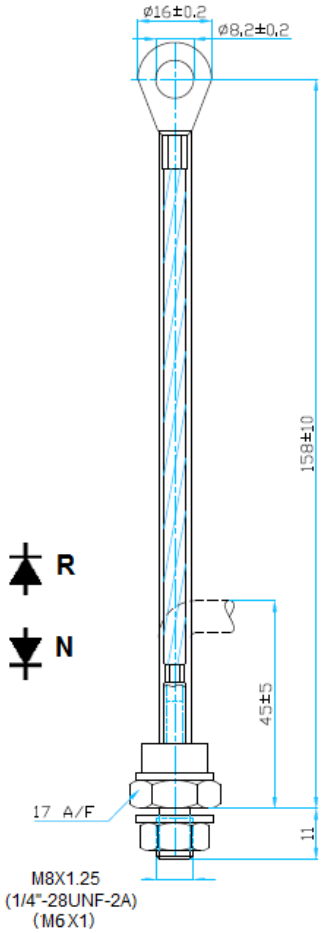


SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE





Scomes srl reserves the right to change any specification without notice

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