SCOMES

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SCD2200

Power Rectifier Diodes

Applications
- Traction Rectifiers
- Uncontrolled Rectifiers
- Welding
- Induction Heating / Melting

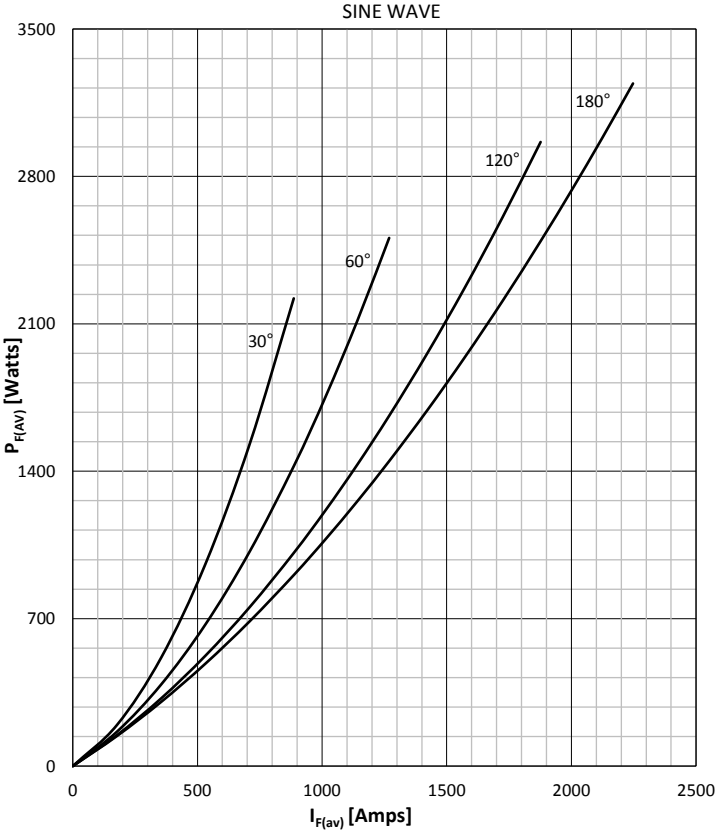
Features
- Full blocking capability over wide temperature range
- Hermetically sealed ceramic package
- High case non-rupture current

Key Parameters
V_{RRM} = 800V
$I_{F(AV)}$ = 2247A
I_{FSM} = 29000A
$V_{F(TO)}$ = 0.75V
r_F = 0.125mΩ

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		175	800	V
V_{RSM}	Non-repetitive peak reverse voltage		175	900	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	175	50	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin,50 Hz, T_c=78°C, double side cooled		2247	A
I_{FRMS}	RMS current			3528	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	29000	A
			175	28000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	4205 x 10^3	A^2s
			175	3920 x 10^3	A^2s
V_F	Forward voltage	On-state current = 1800A	25	1.07	V
$V_{F(TO)}$	Threshold voltage		175	0.75	V
r_F	Forward slope resistance		175	0.125	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, double side cooled		0.030	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, double side cooled		0.007	°C/W
T_j	Max. junction temperature			175	°C
T_{stg}	Storage temperature			-40 175	°C
M	Clamping force			12 - 13	KN
W	Weight (Approx.)			300	gm

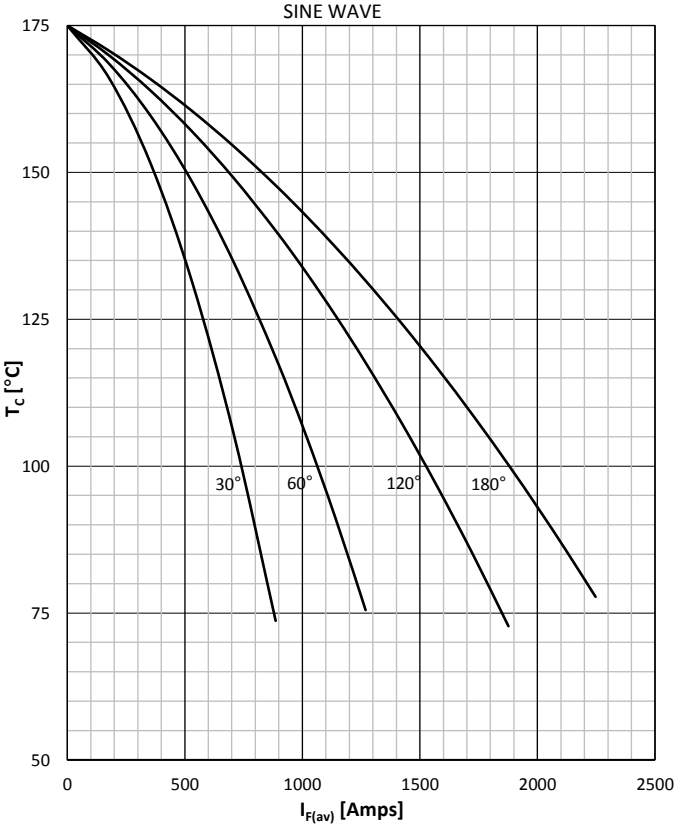
DISSIPATION CHARACTERISTICS

SINE WAVE



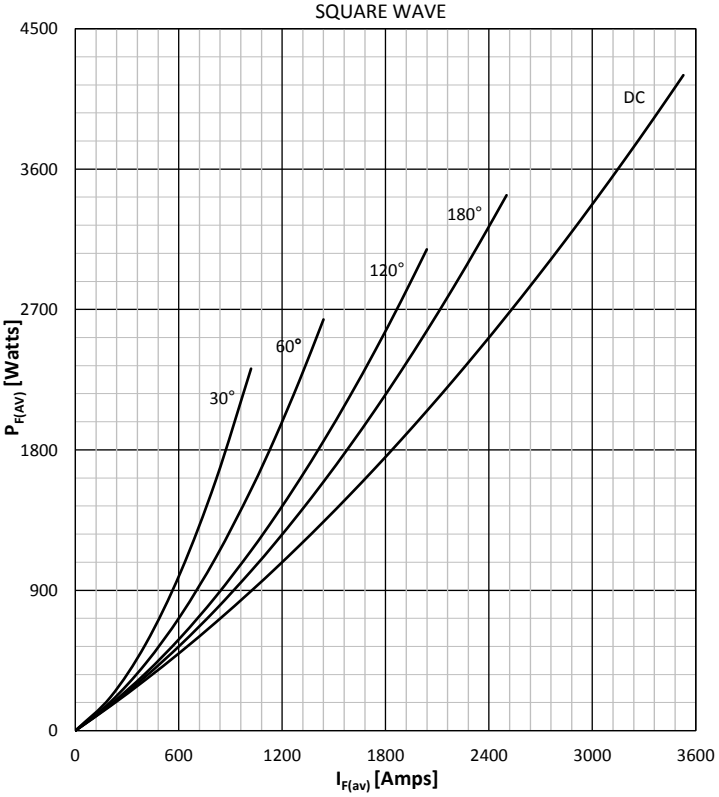
FORWARD CURRENT DERATING CURVE

SINE WAVE



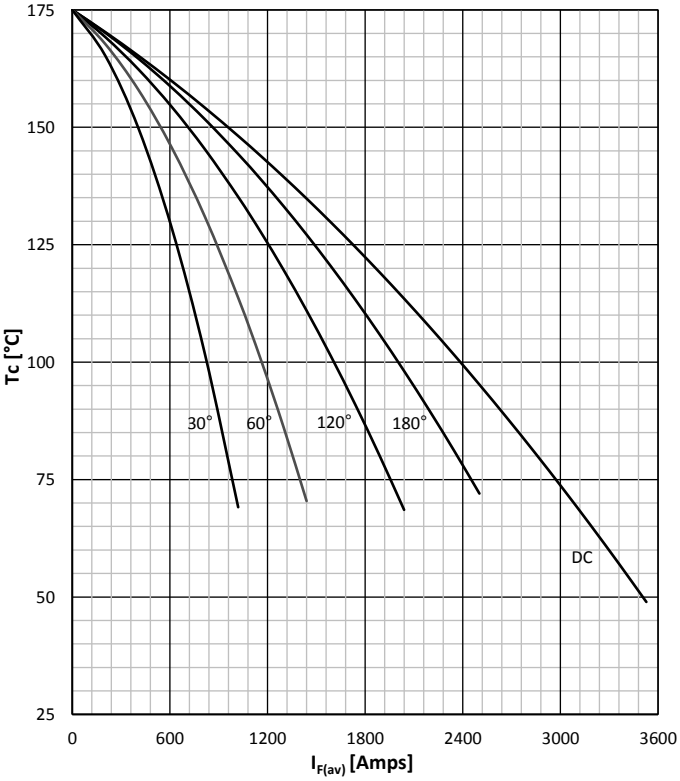
DISSIPATION CHARACTERISTICS

SQUARE WAVE

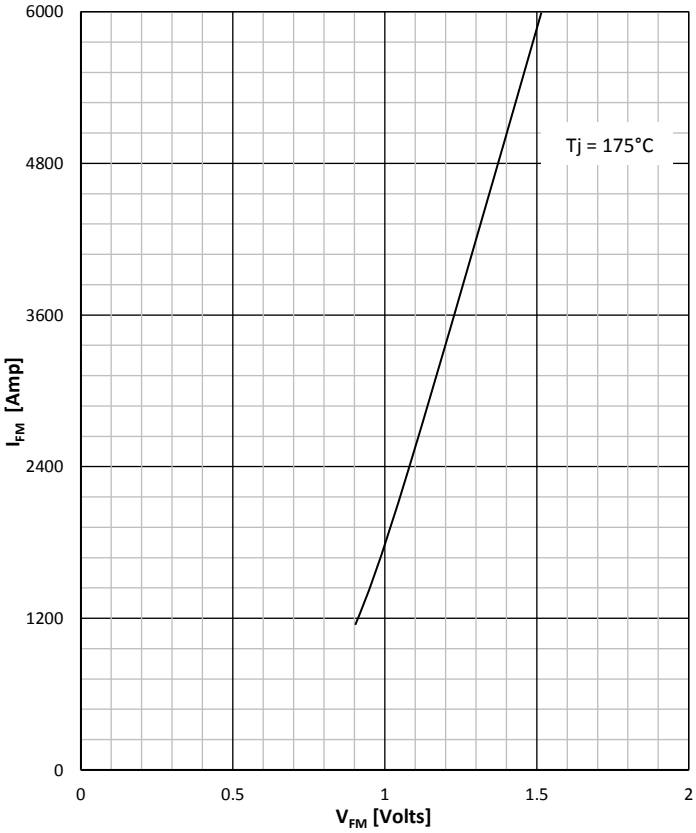


FORWARD CURRENT DERATING CURVE

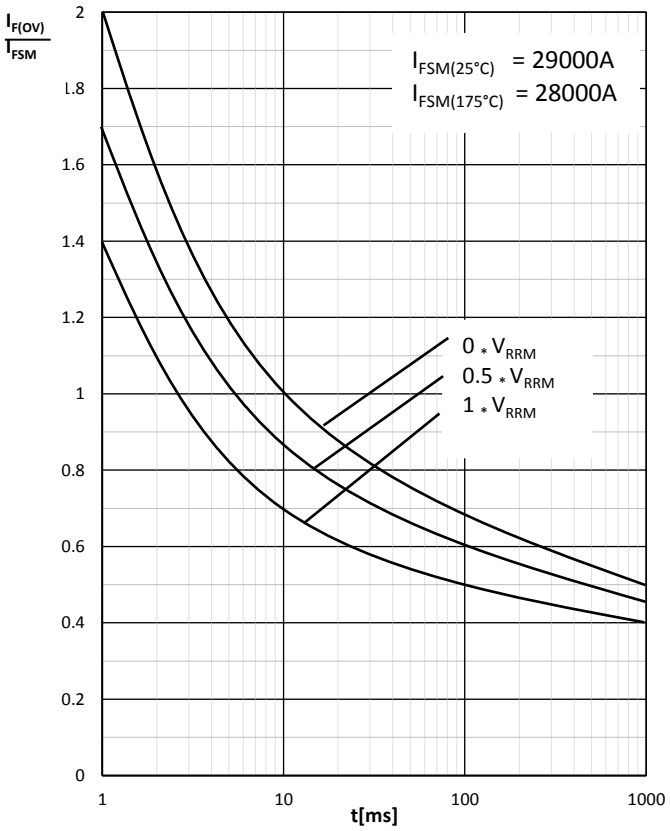
SQUARE WAVE



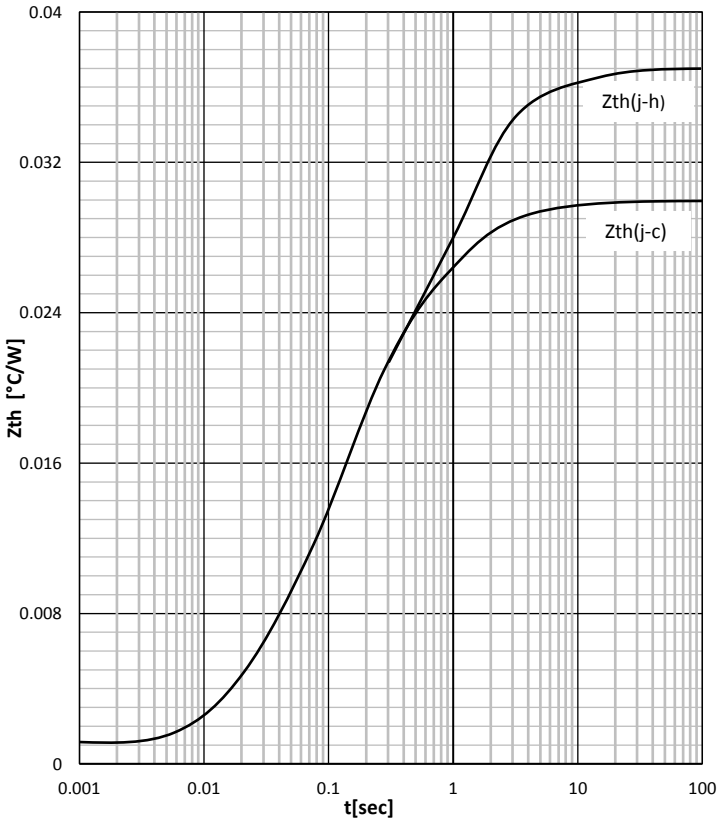
FORWARD CHARACTERISTIC

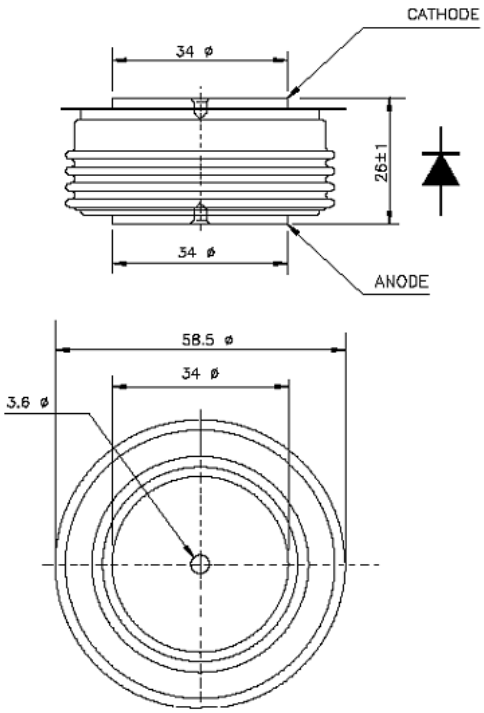


SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE





Scomes srl reserves the right to change any specification without notice

S.CO.M.E.S. srl Via Enrico Mattei,6/8 26823 Castiglione d'Adda(LO)-IT
Phone:+39 0377 901243 Fax:+39 0377 900206