



Key Parameters

V_{RRM}	= 2400V
$I_{F(AV)}$	= 1105A
I_{FSM}	= 9000A
$V_{F(TO)}$	= 0.91V
r_F	= 0.518mΩ

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

Ordering Information

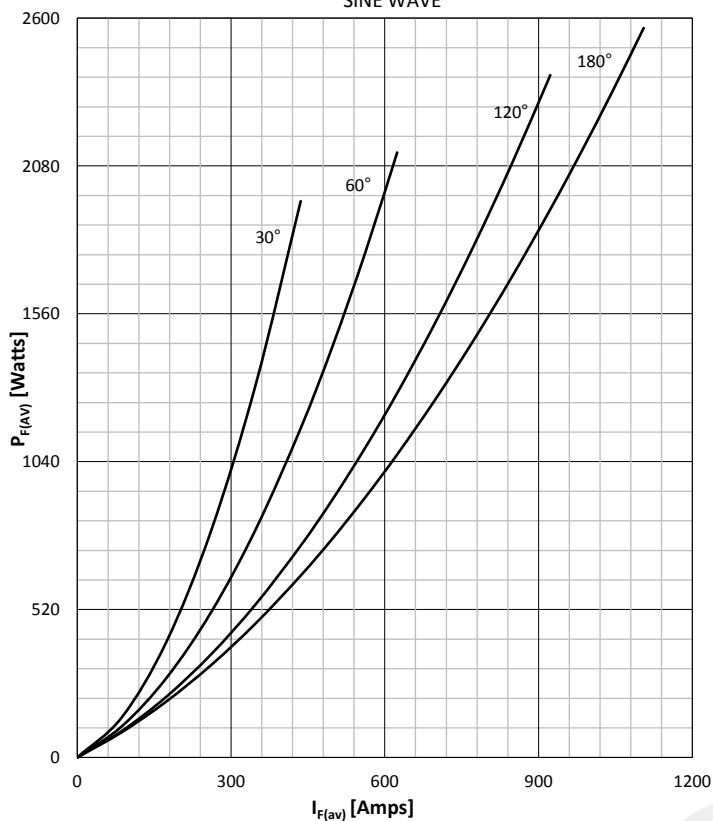
MS D	1105	C	XX
Rectifier Diode	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS D1105C24 : 2400V V_{RRM} , Capsule Diode			

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		175	1800 - 2400	V
V _{RSM}	Non-repetitive peak reverse voltage		175	2000 - 2600	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 =85°C , double side cooled 180° sin, 50 Hz, T _c =121°C , double side cooled		1105 800	A
I _{FRMS}	RMS current	T _c =85°C , double side cooled		1735	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	9000	A
			175	7750	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	405 x 10 ³	A ² s
			175	300 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1500A	175	1.75	V
V _{F(TO)}	Threshold voltage		175	0.91	V
r _F	Forward slope resistance		175	0.518	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, double side cooled		0.035	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		0.02	°C/W
T _j	Max. junction temperature			175	°C
T _{stg}	Storage temperature			-40 175	°C
M	Clamping force			9 - 11	KN
W	Weight (Approx.)			110	gm
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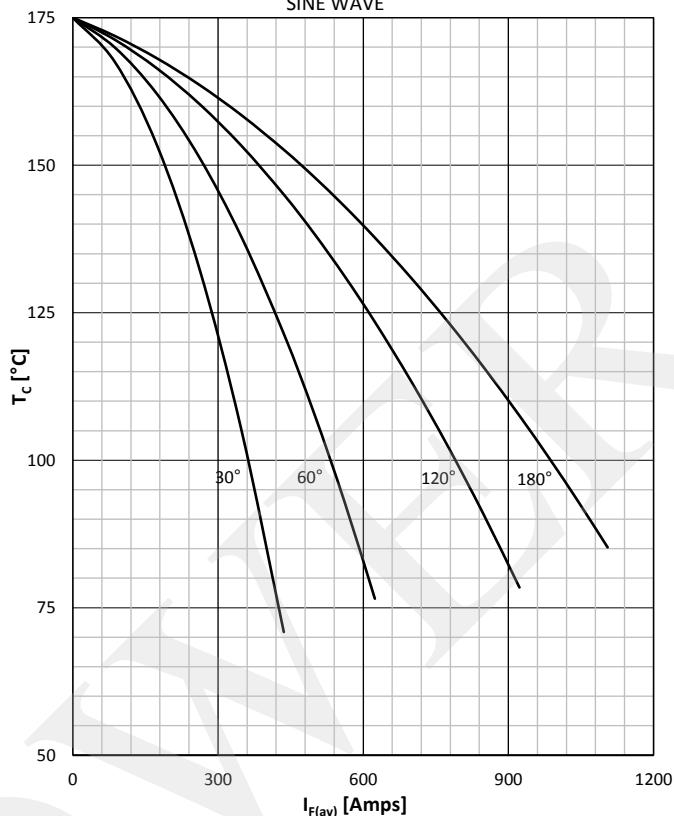
DISSIPATION CHARACTERISTICS

SINE WAVE



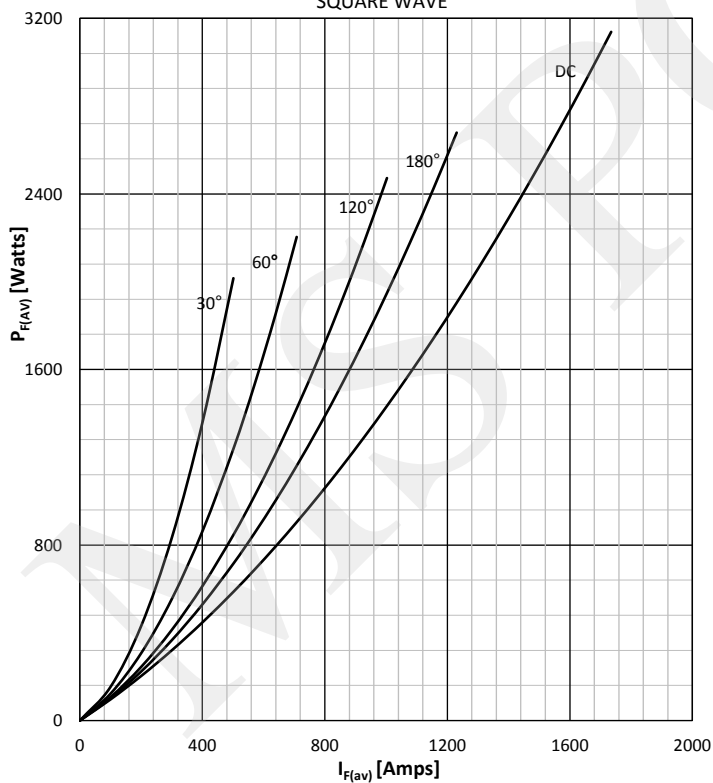
FORWARD CURRENT DERATING CURVE

SINE WAVE



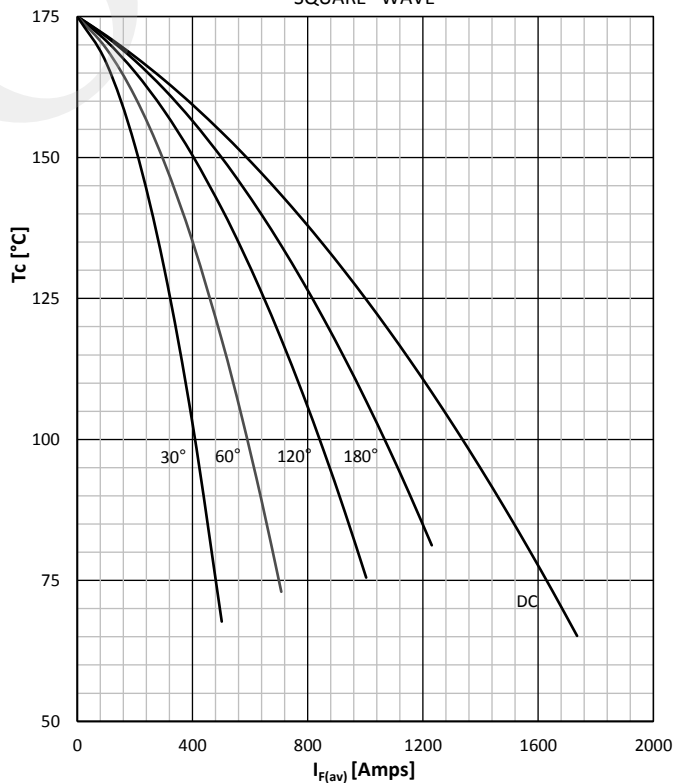
DISSIPATION CHARACTERISTICS

SQUARE WAVE



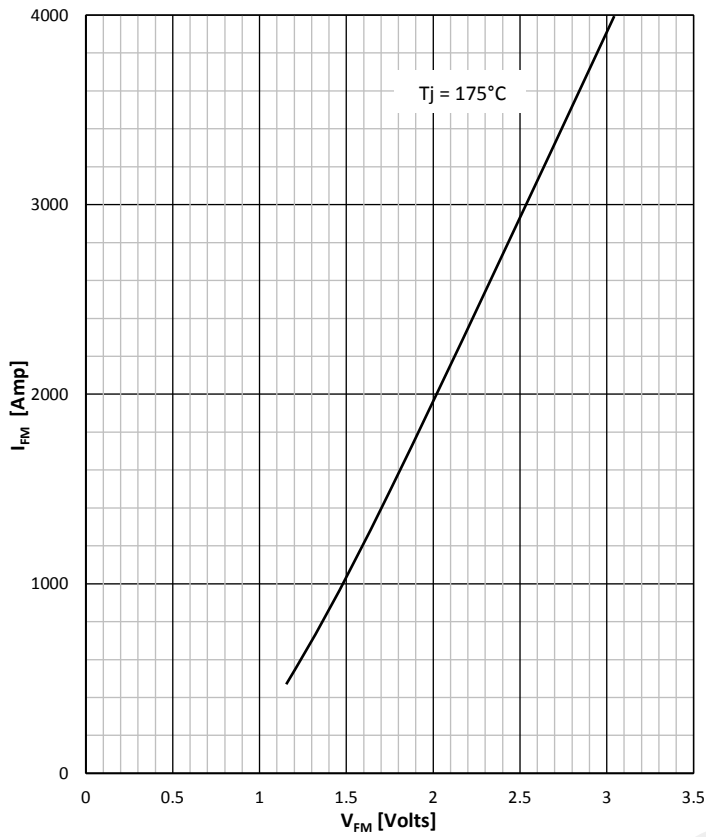
FORWARD CURRENT DERATING CURVE

SQUARE WAVE

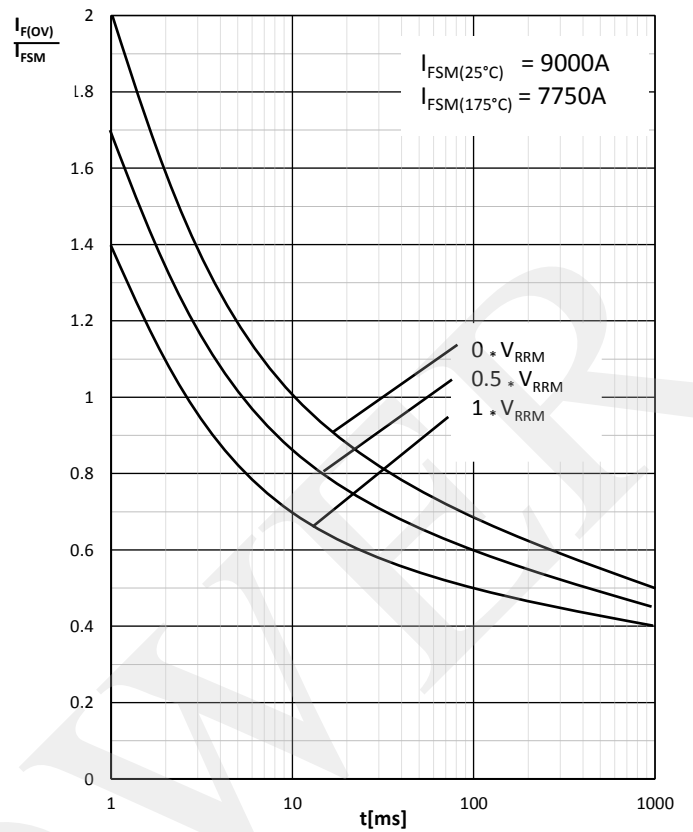


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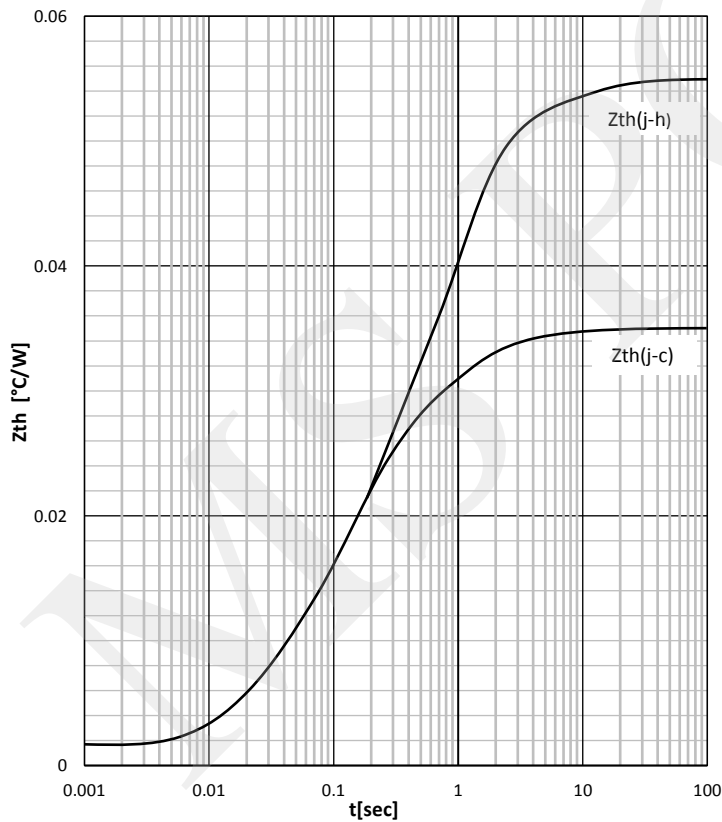
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

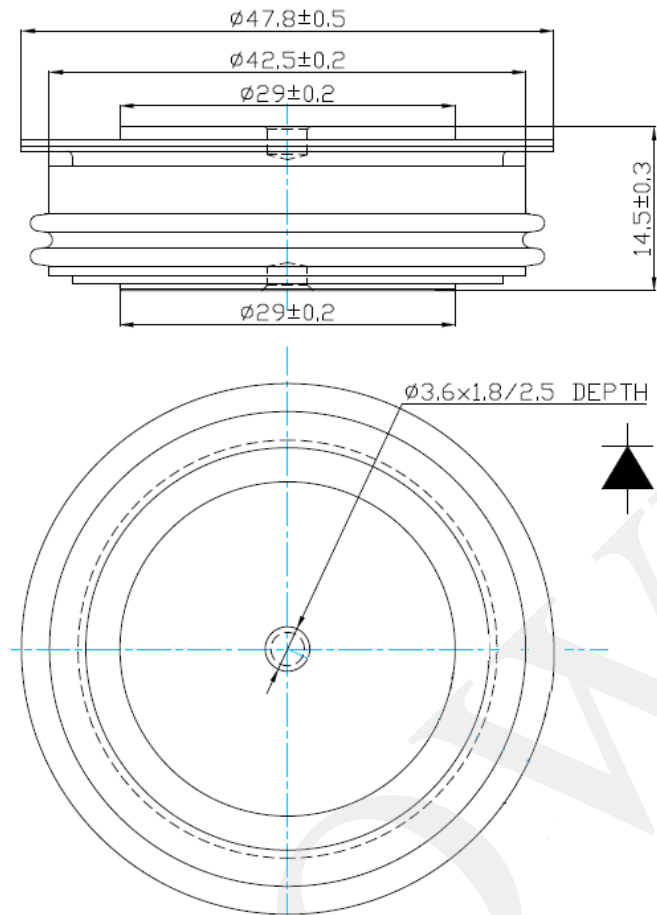


TRANSIENT THERMAL IMPEDANCE



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