

Key Parameters

V_{RRM}	= 2600V
$I_{F(AV)}$	= 3950A
I_{FSM}	= 31000A
$V_{F(TO)}$	= 0.912V
r_F	= 0.0885mΩ

Features

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

Applications

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

Ordering Information

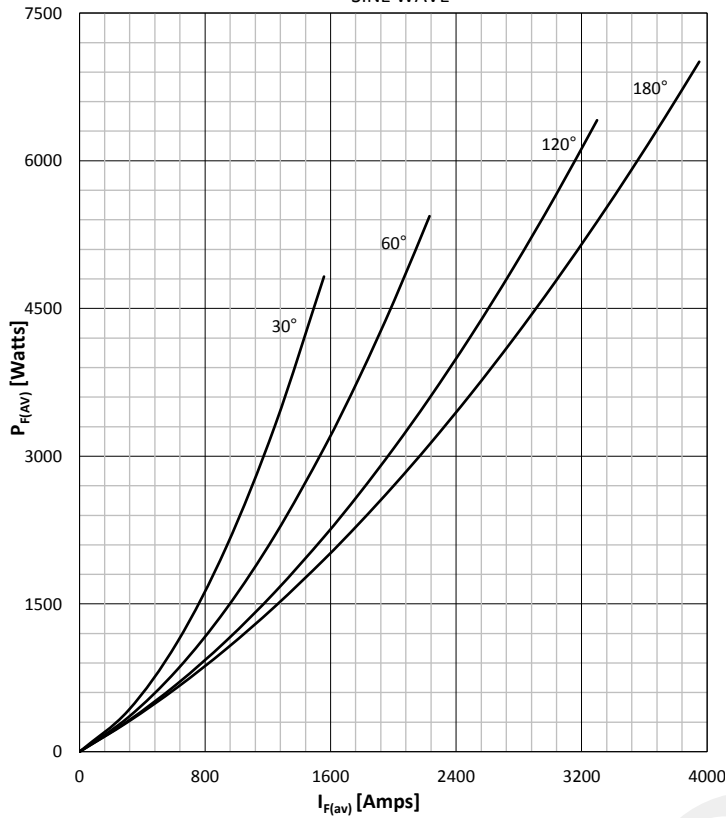
MS D	3950	C	XX
Rectifier Diode	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS D3950C26 : 2600V V_{RRM} , Capsule Diode			

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		175	1800 - 2600	V
V _{RSM}	Non-repetitive peak reverse voltage		175	1900 - 2700	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	175	75	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 =115°C, double side cooled		3950 3000	A
I _{FRMS}	RMS current			6201	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	31000	A
			175	28600	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	4805 x 10 ³	A ² s
			175	4090 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1500A	25	1.10	V
V _{F(TO)}	Threshold voltage		175	0.912	V
r _F	Forward slope resistance		175	0.0885	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, DC	Junction to case, double side cooled		0.0128	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		0.006	°C/W
T _j	Max. junction temperature			175	°C
T _{stg}	Storage temperature			-40 175	°C
M	Clamping force			24 - 26	KN
W	Weight (Approx.)			300	gm
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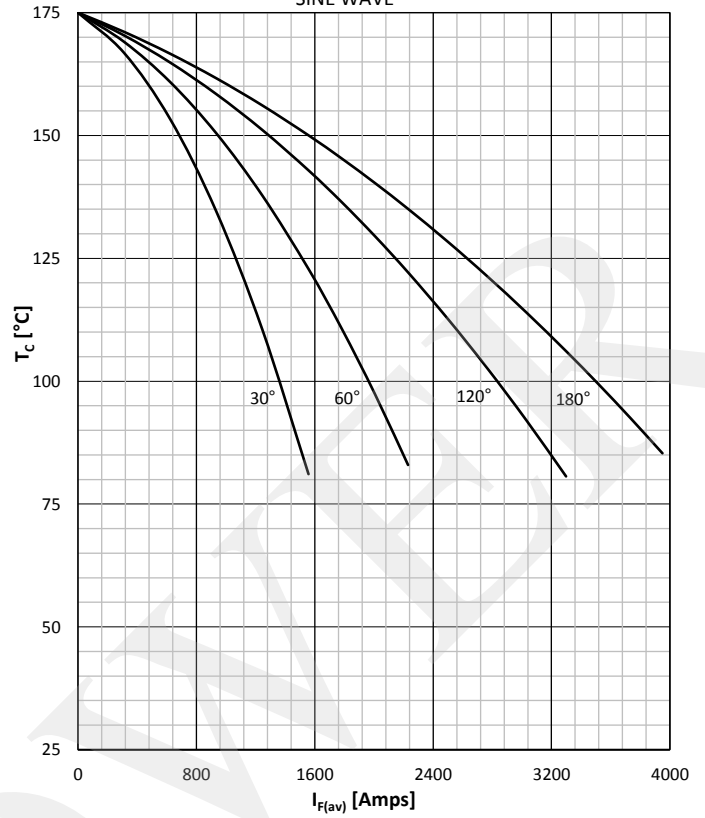
DISSIPATION CHARACTERISTICS

SINE WAVE



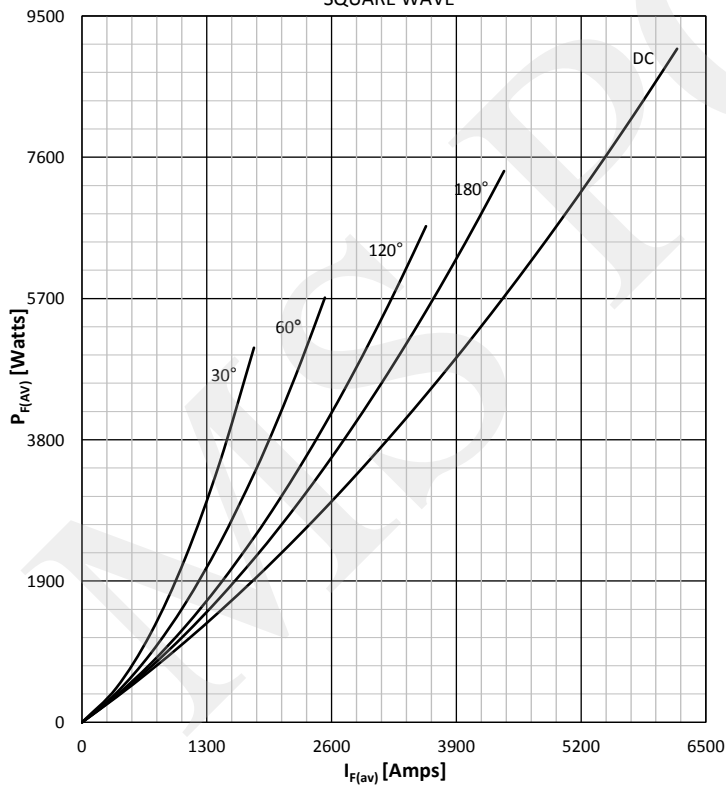
FORWARD CURRENT DERATING CURVE

SINE WAVE



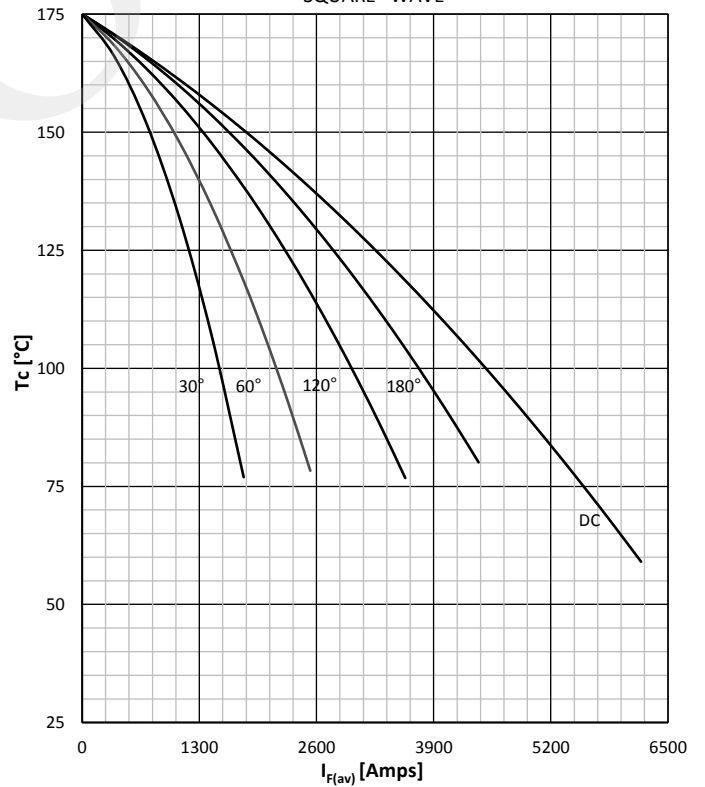
DISSIPATION CHARACTERISTICS

SQUARE WAVE



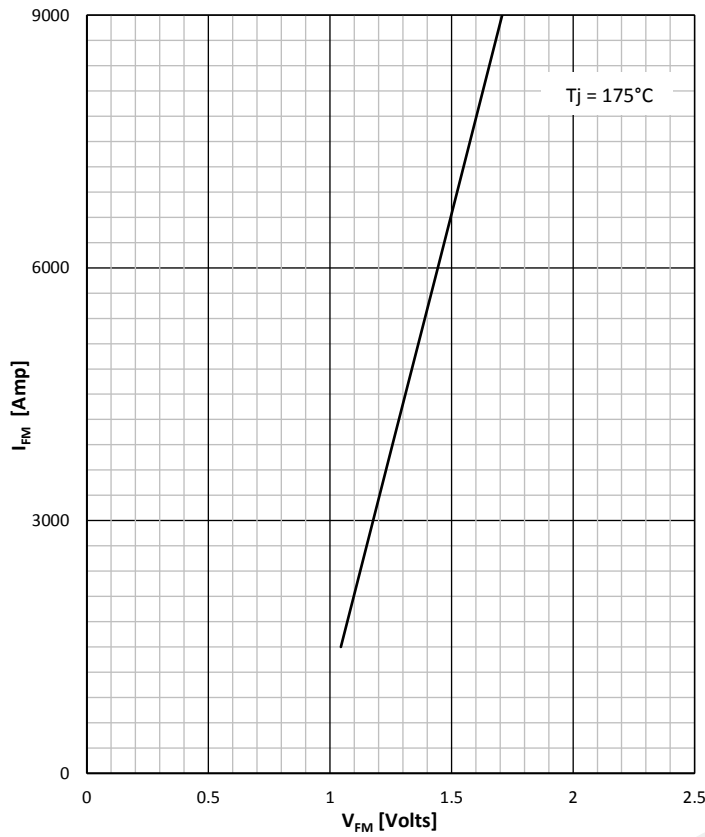
FORWARD CURRENT DERATING CURVE

SQUARE WAVE

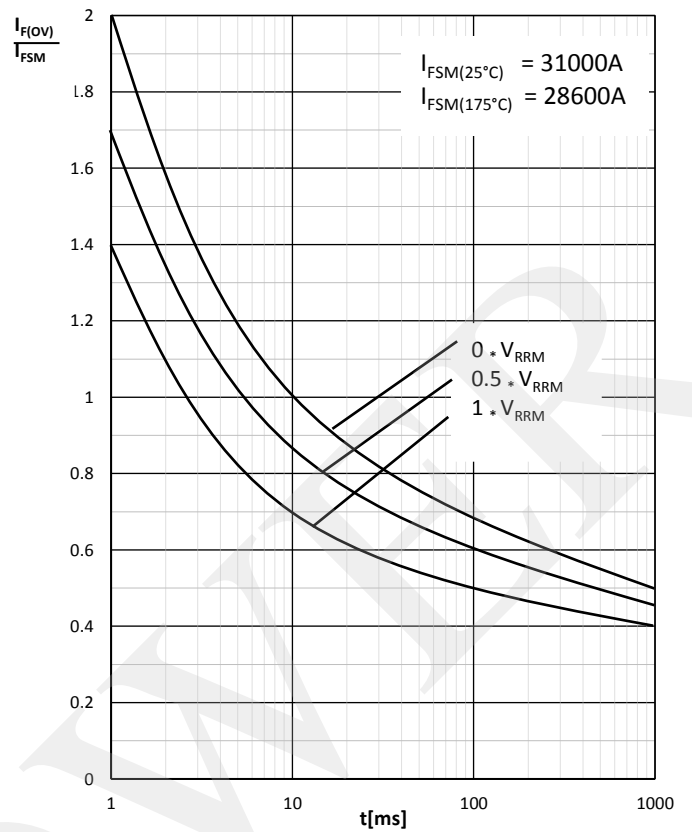


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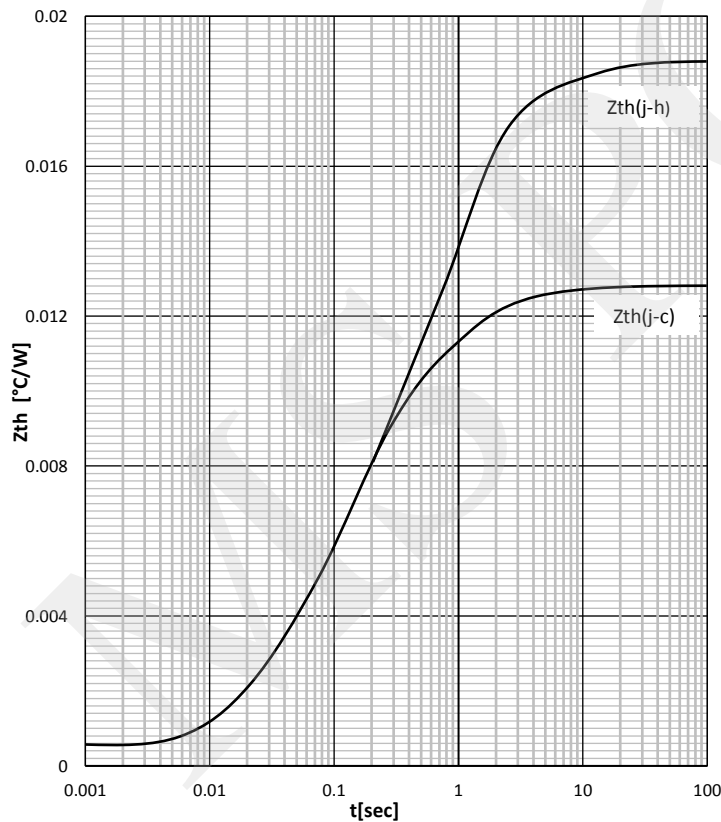
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



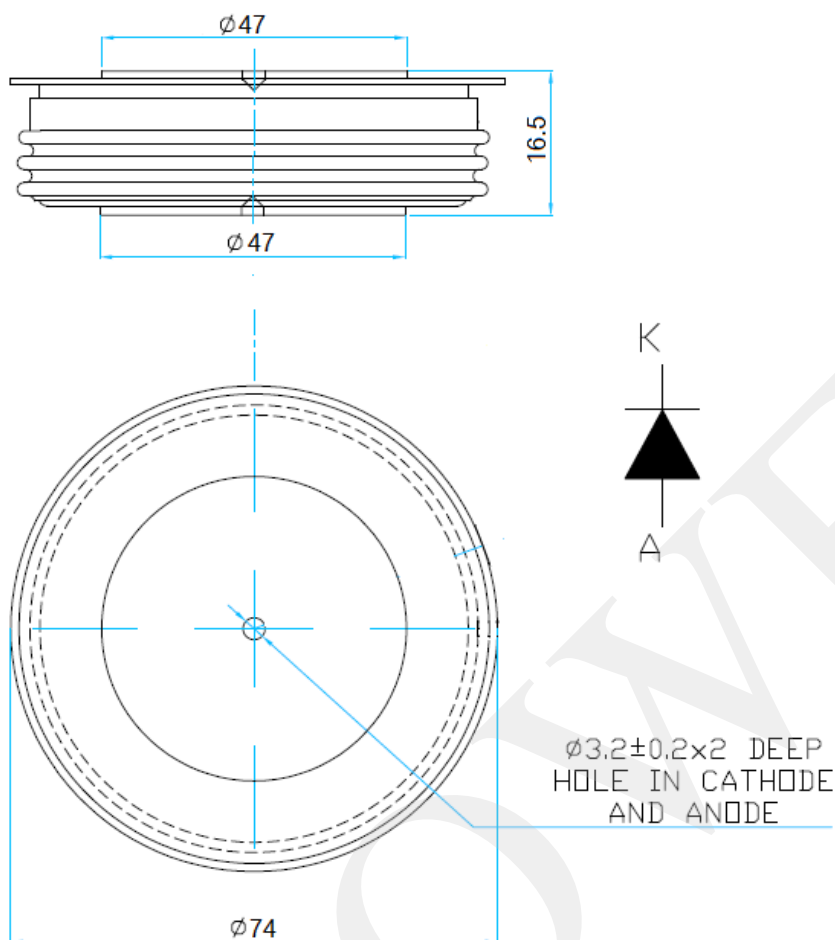
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