



Key Parameters

V_{RRM}	= 3000V
$I_{F(AV)}$	= 2645A
I_{FSM}	= 32000A
$V_{F(TO)}$	= 0.87V
r_F	= 0.127mΩ

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

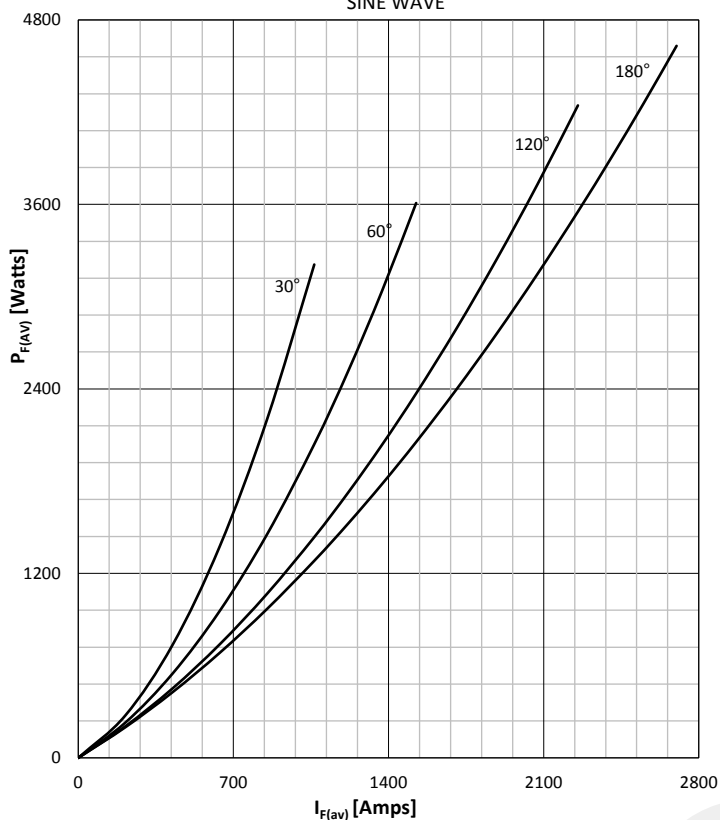
MS D	2645	C	XX
Rectifier Diode	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS D2645C30 : 3000V V_{RRM} , Capsule Diode			

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		175	2200 - 3000	V
V _{RSM}	Non-repetitive peak reverse voltage		175	2300 - 3100	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 =82°C , double side cooled		2645 2700	A
I _{FRMS}	RMS current	T _c =82°C , double side cooled		4239	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	32000	A
			175	30500	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	5120 x 10 ³	A ² s
			175	4651 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 2900A	25	1.30	V
V _{F(TO)}	Threshold voltage		175	0.87	V
r _F	Forward slope resistance		175	0.127	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, DC	Junction to case, double side cooled		0.020	°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			18 - 24	KN
W	Weight (Approx.)			550	gm
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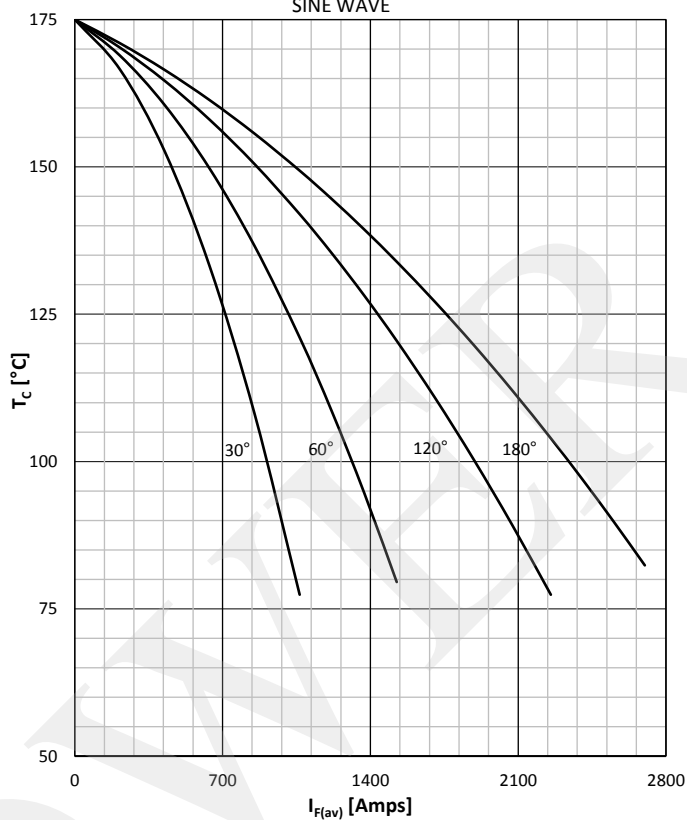
DISSIPATION CHARACTERISTICS

SINE WAVE



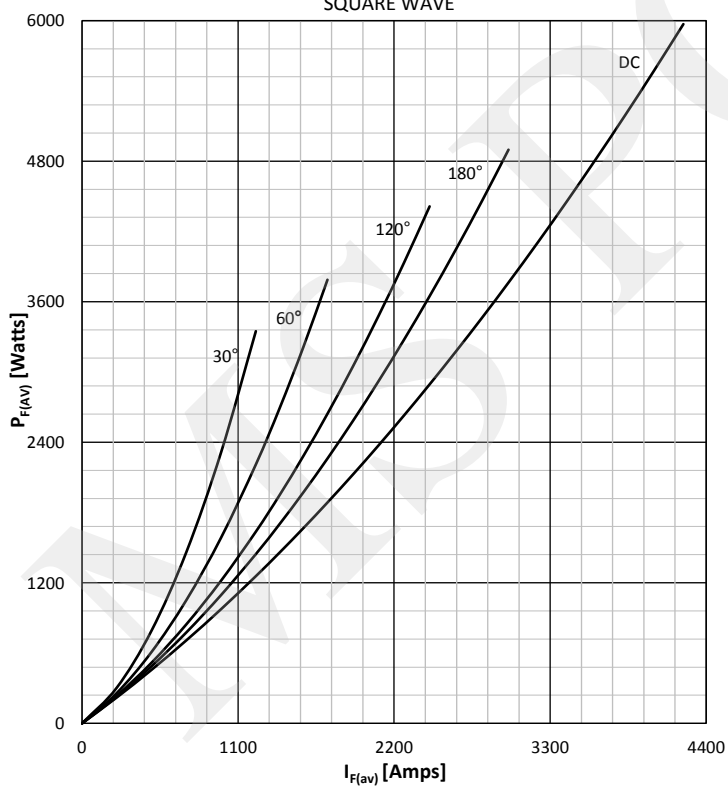
FORWARD CURRENT DERATING CURVE

SINE WAVE



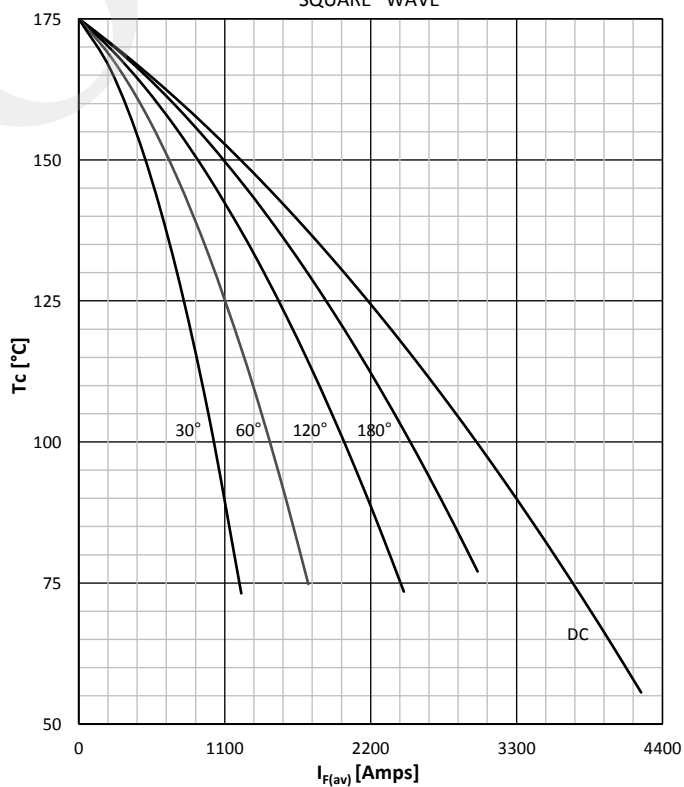
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



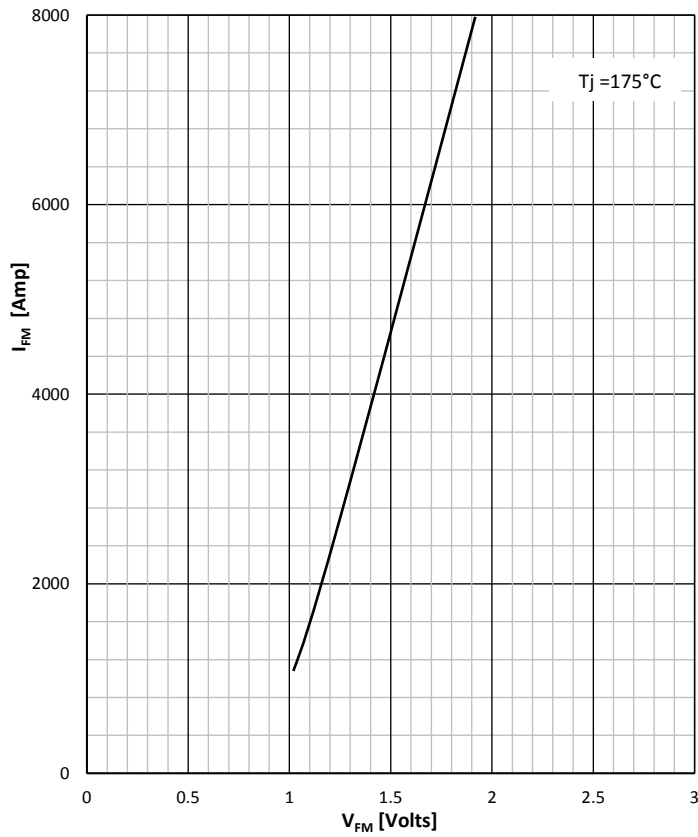
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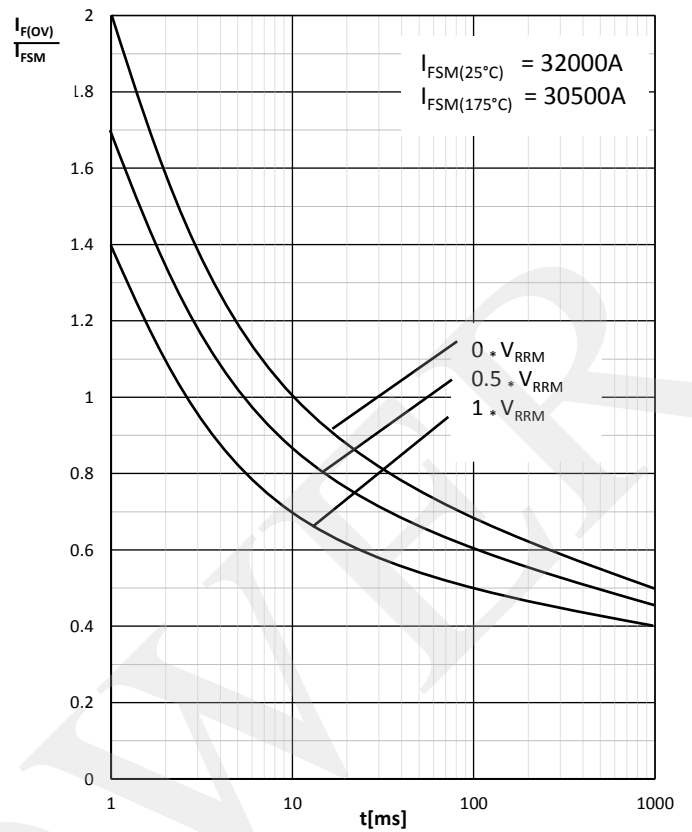
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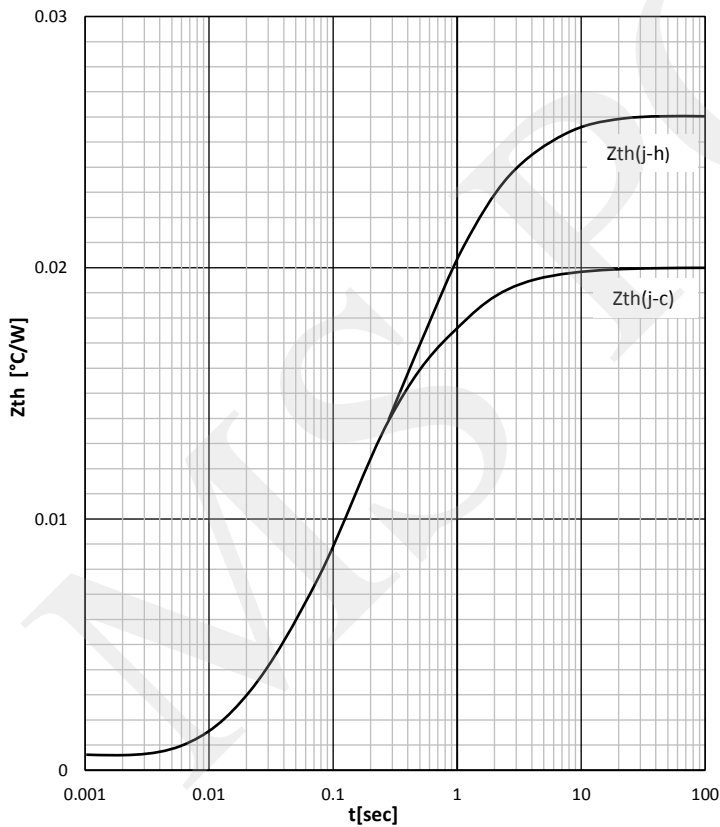
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, DSC



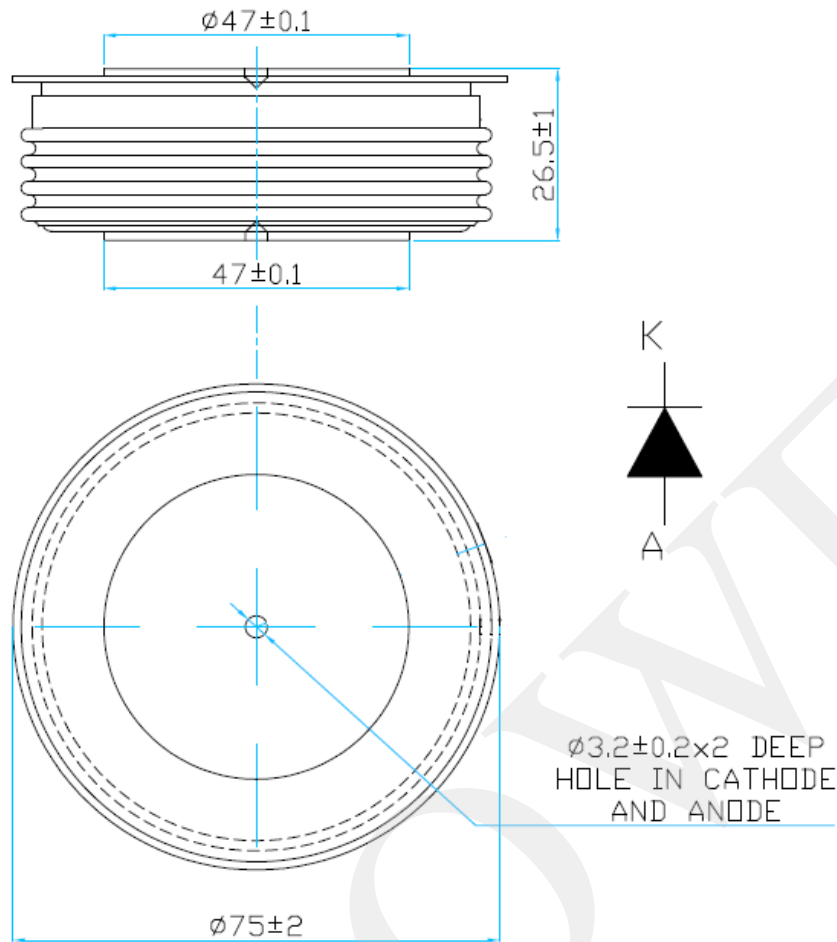
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Outline



MS Power GmbH

Mergenthalerallee 79-81
65760 Eschborn, Germany
Web: www.mspowergroup.com
Mail: info@mspowergroup.de

Sales & Enquiry:

sales@mspowergroup.de

Technical Support:

solution@mspowergroup.de

After sales Service:

service@mspowergroup.de

Phone: +49 (0) 6196/7768 666

Fax: +49 (0) 6196/7757 888



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