



Key Parameters

V_{RRM}	= 2000V
$I_{F(AV)}$	= 965A
I_{FSM}	= 16200A
$V_{F(TO)}$	= 1.24V
r_F	= 0.33mΩ

Features

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

Applications

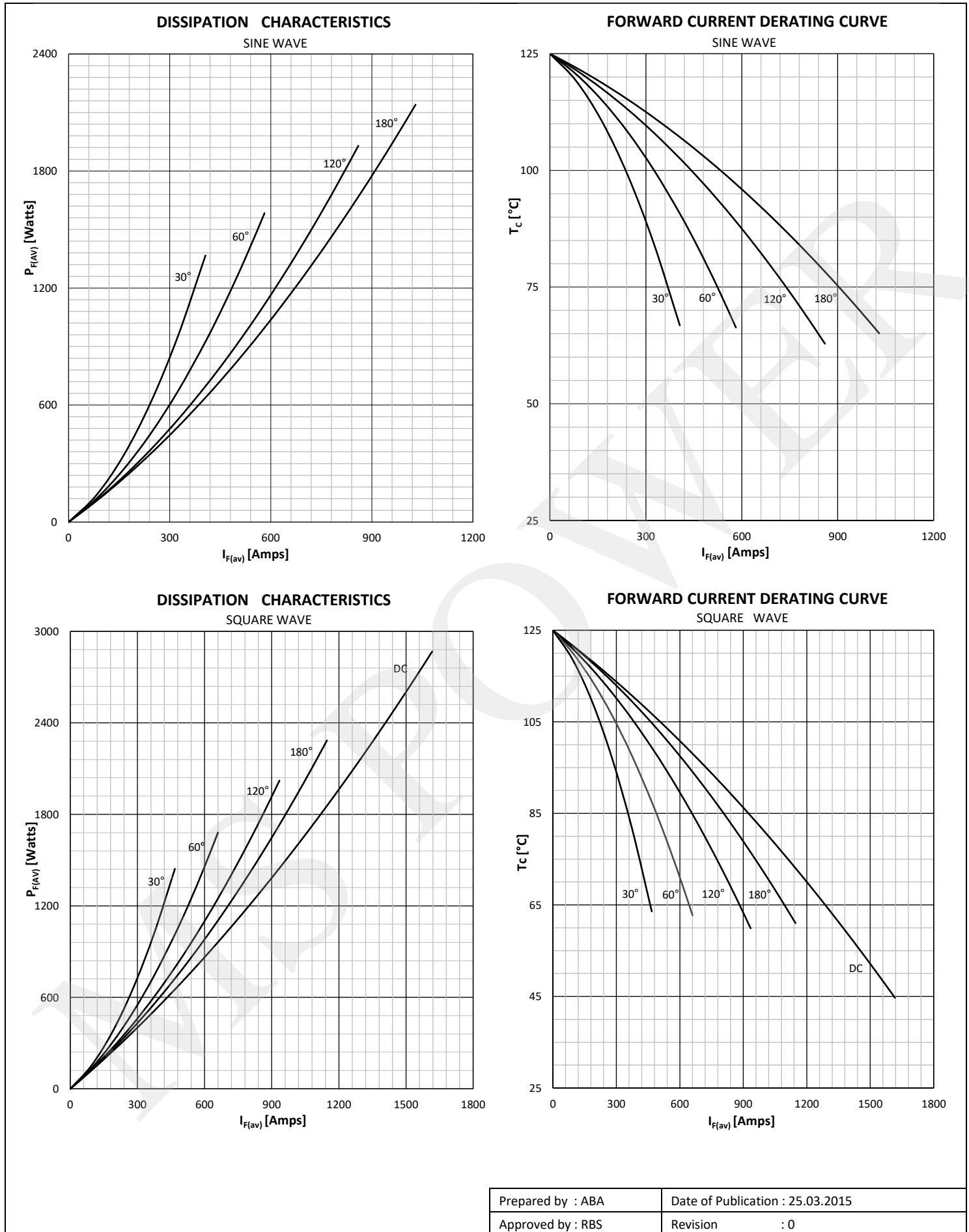
- Power Supplies
- Uncontrolled Rectifiers
- Freewheeling / Snubber
- Induction Heating / Melting

Ordering Information

MS DS	965	C	XX
Fast Recovery Diode with soft characteristics	Current code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS DS965C20 : 2000V V_{RRM} , fast recovery capsule Diode			

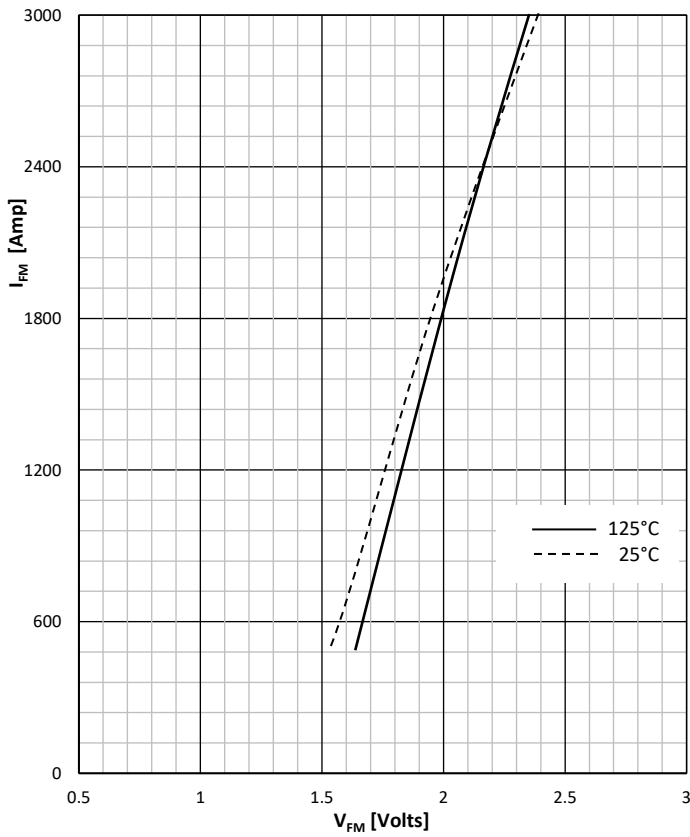
Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		125	1200 - 2000	V
V _{RSM}	Non-repetitive peak reverse voltage		125	1300 - 2100	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	125	100	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin, 50 Hz, T _c =65°C, double side cooled 180° sin, 50 Hz, T _c =70°C, double side cooled		1030 965	A
I _{FRMS}	RMS current	T _c =65°C, double side cooled		1617	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	16200	A
			125	15400	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	1312 x 10 ³	A ² s
			125	1186 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 2050A	125	1.85	V
V _{F(TO)}	Threshold voltage		125	1.24	V
r _F	Forward slope resistance		125	0.33	mΩ
SWITCHING					
Q _{rr}	Recovered Charge (typical)	I _{FM} =1000A, -di _F /dt = 60A/μs, V _r = 50V, t _p =1000 μs, 50% chord.	125	375	μC
I _{rm}	Reverse recovery current (typical)		125	95	A
T _{rr}	Reverse recovery time, 50%chord (typical)		125	3.0	μs
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, double side cooled		0.028	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, double side cooled		0.005	°C/W
T _j	Max. junction temperature			125	°C
T _{stg}	Storage temperature			-40 125	°C
M	Clamping force			16 - 18	KN
W	Weight (Approx.)			350	gm
			Prepared by : ABA	Date of Publication : 25.03.2015	
			Approved by : RBS	Revision : 0	

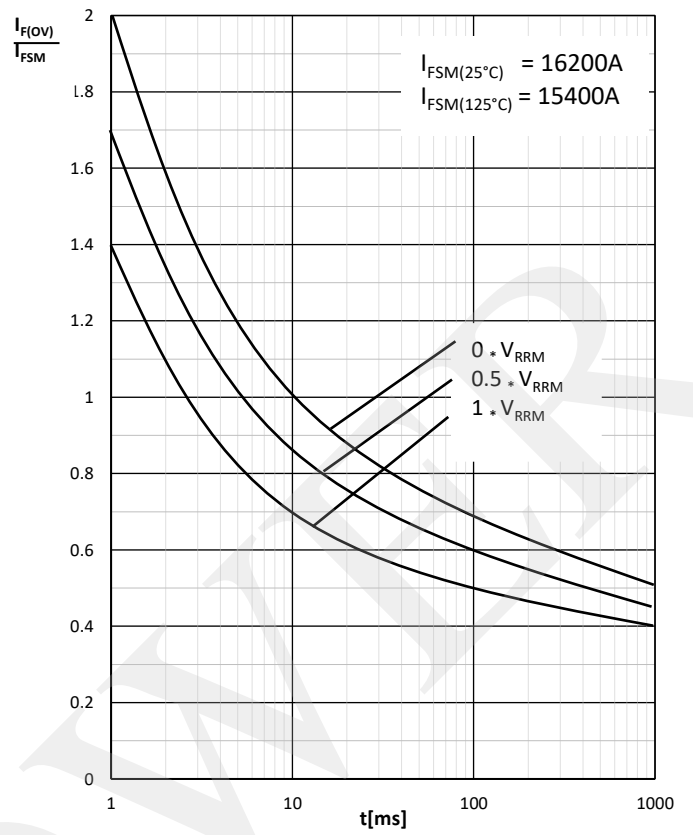


Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0

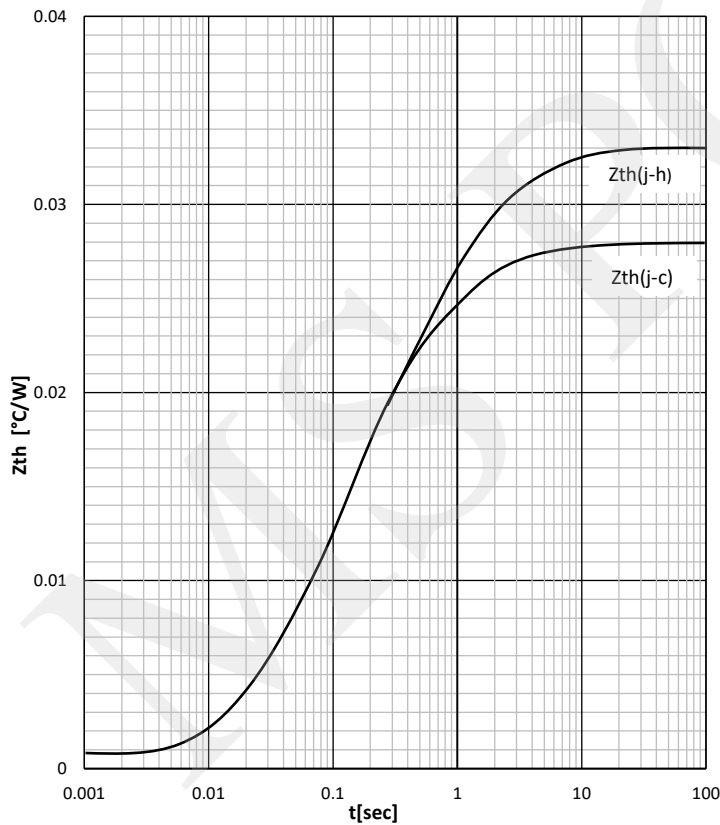
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, DSC



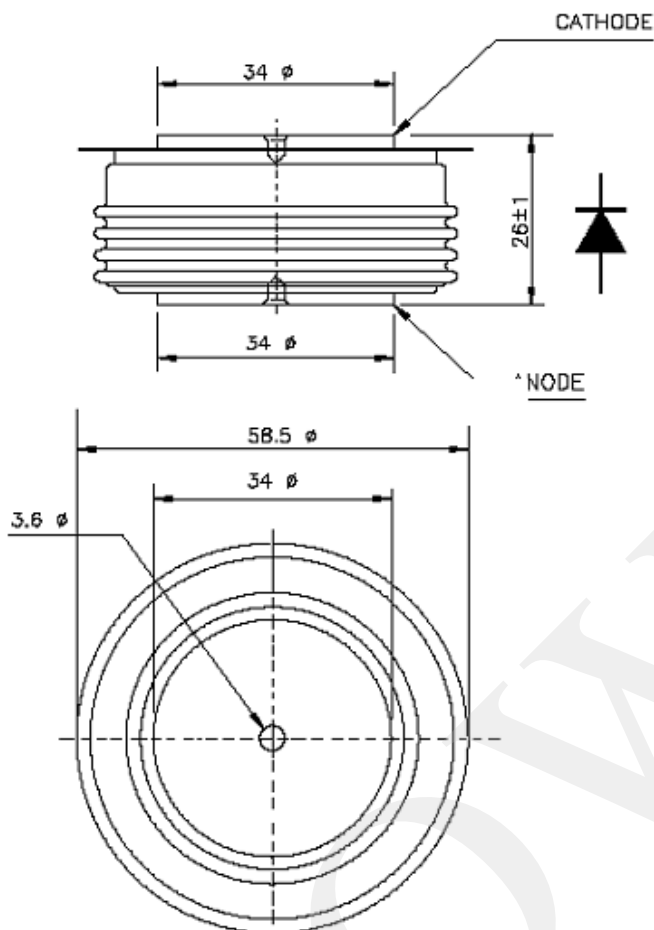
Prepared by : ABA

Date of Publication : 25.03.2015

Approved by : RBS

Revision : 0

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



Prepared by : ABA

Date of Publication : 25.03.2015

Approved by : RBS

Revision : 0

Terms & Conditions of usage :

The data contained in this product datasheet is exclusively Intended for technically trained staff. You and your technical departments will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to such application. This product datasheet is describing the characteristics of this product for which a warranty is granted. Any such warranty is granted exclusively pursuant the terms and conditions of the supply agreement. There will be no guarantee of any kind for the product and its characteristics. The information in the valid application-and assembly notes of the device must be considered.

Should you require product information in excess of the data given in this product datasheet or which concerns the specific application of our product, please contact the sales office, which is responsible for you (see www.mspowergroup.com). For those that are specifically interested we may provide application notes.

Due to technical requirements our product may contain dangerous substances. For information on the types in question please contact the sales office, which is responsible for you.

Should you intend to use the Product in aviation applications, in health or live endangering or life support applications, please notify. Please note, that for any such applications we urgently recommend

- to perform joint Risk and Quality Assessments;
- the conclusion of Quality Agreements;
- to establish joint measures of an ongoing product survey, and that we may make delivery depended on the realization of any such measures.

If and to the extent necessary, please forward equivalent notices to your customers.

Changes of this product datasheet are reserved.

Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0