



Key Parameters

V_{RRM}	= 1600V
$I_{D(AV)}$	= 110A
I_{FSM}	= 1150A
$V_{F(TO)}$	= 0.85V
r_F	= 4.0mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through isolated metal base plate
- Hard soldered joints for high reliability

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Field supply for DC motors

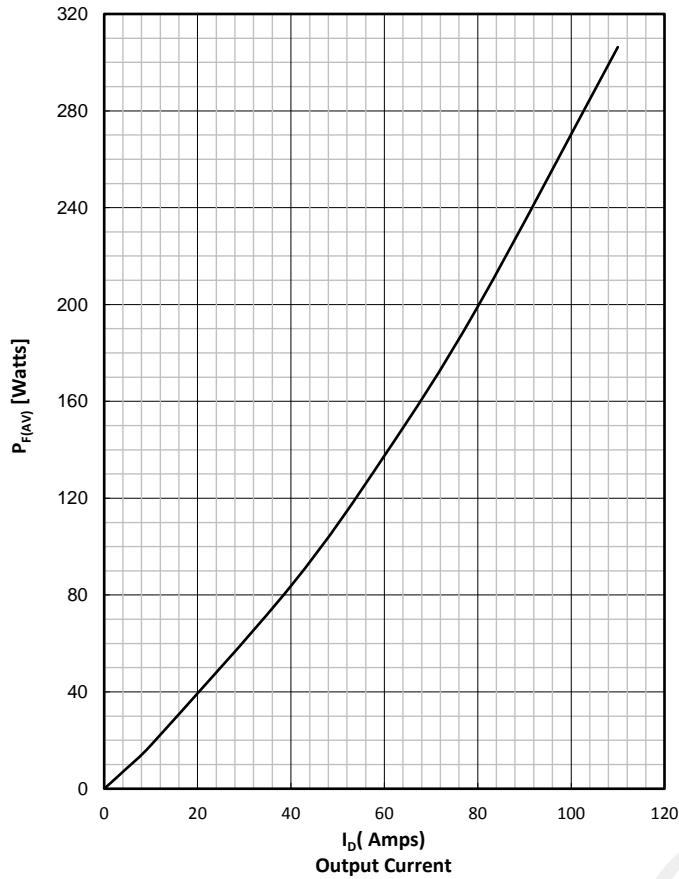
Ordering Information

MDQ	100	- X X
Single Phase Diode bridge rectifier	Current Code	Voltage Code Code X 100 = V_{RRM}
Order Code MDQ100-16 : 1600V V_{RRM} , Single Phase Diode bridge rectifier		

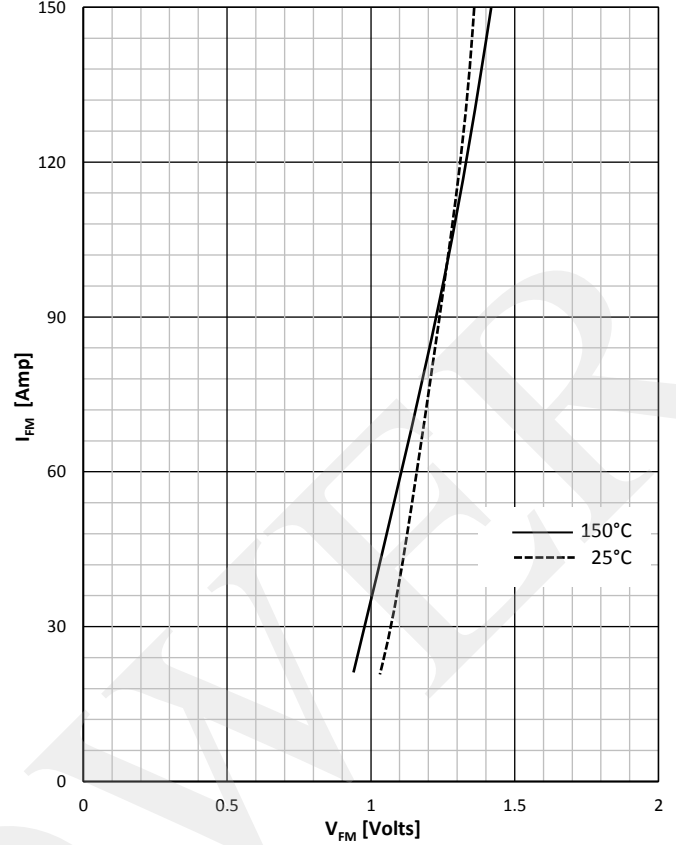
Prepared by : ABA	Date of Publication : 15.07.2015
Approved by : RBS	Revision : 0

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	200 - 1600	V
V _{RSM}	Non-repetitive peak reverse voltage		150	300 - 1700	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	150	10	mA
CONDUCTING					
I _{D(AV)}	DC output current	T _c =85°C		110	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	1150	A
			150	1000	A
I ² _t	I ² _t	Sine wave, 10 ms Without reverse voltage	25	6612	A ² s
			150	5000	A ² s
V _F	Forward voltage	On-state current = 150A	25	1.35	V
V _{F(TO)}	Threshold voltage		150	0.85	V
r _F	Forward slope resistance		150	4	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, per arm per bridge		0.80 0.20	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, per bridge		0.05	°C/W
T _j	Max. junction temperature			150	°C
T _{stg}	Storage temperature			-40 150	°C
V _{ISOL}	Insulation test voltage, RMS	F=50Hz, 1min		2.5	KV
M1	Mounting torque			4 ± 15%	Nm
M2	Terminal connection torque			4 ± 15%	Nm
W	Weight (Approx.)			150	gm
			Prepared by : ABA	Date of Publication : 15.07.2015	
			Approved by : RBS	Revision : 0	

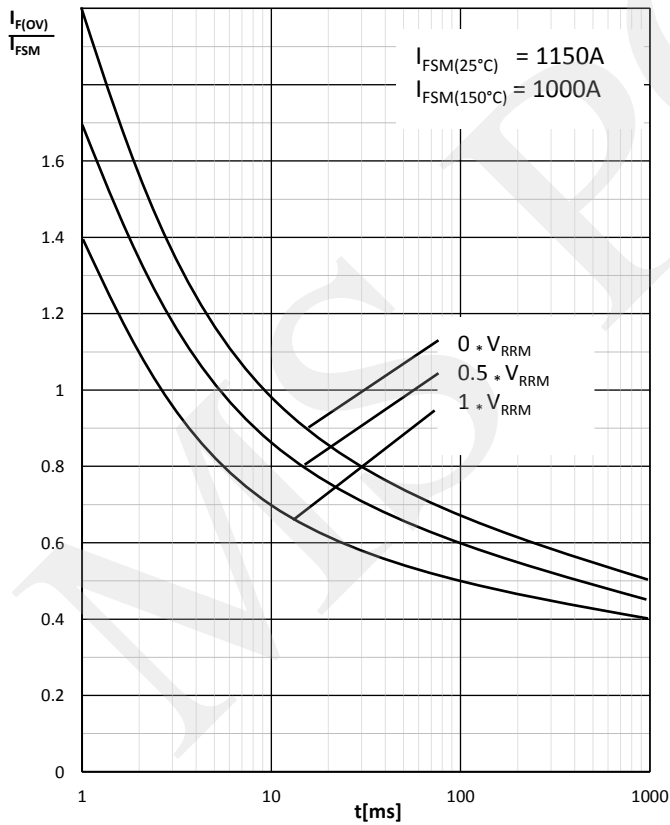
POWER DISSIPATION Vs OUTPUT CURRENT



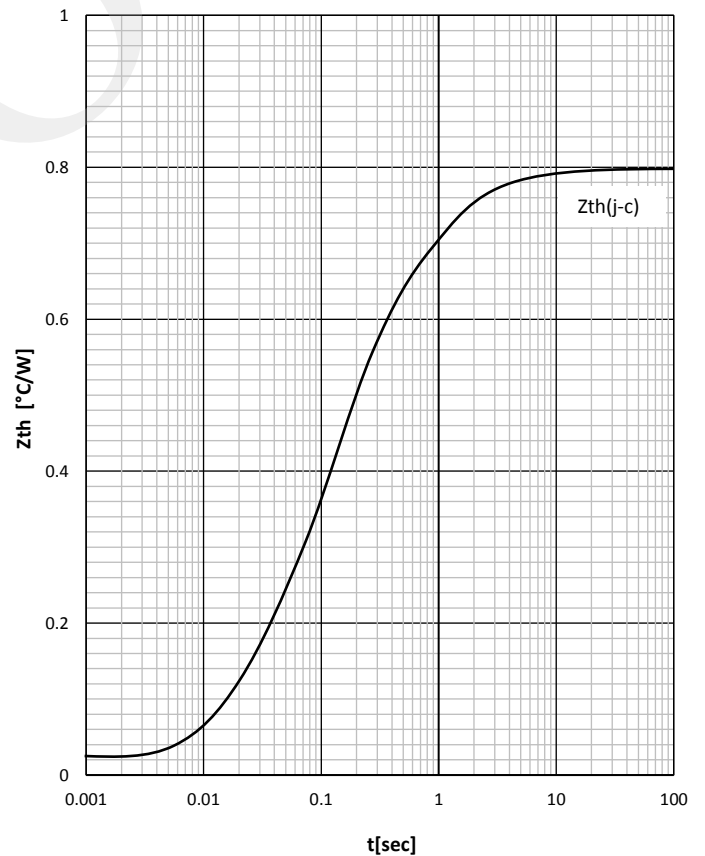
ON -STATE CHARACTERISTIC OF A DIODE ARM



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER ARM



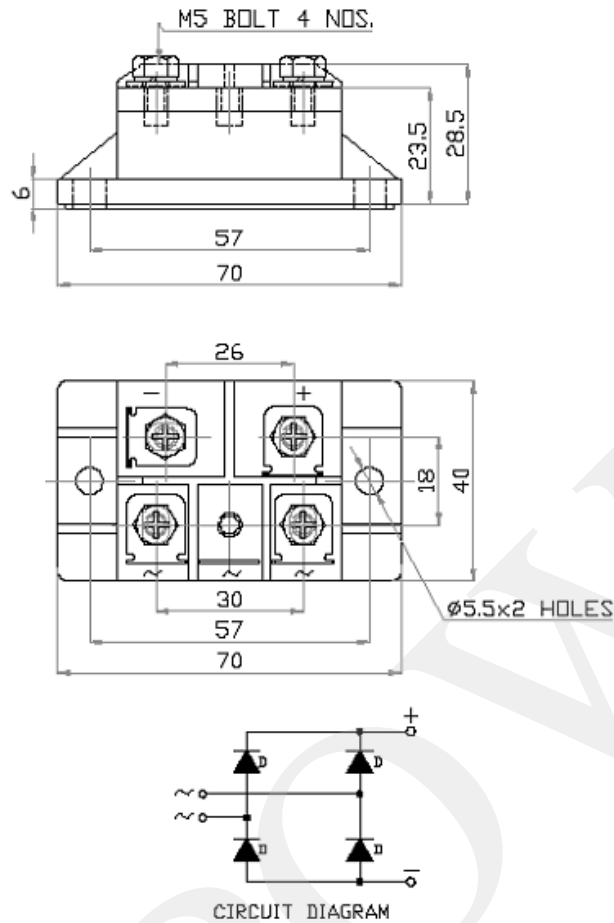
Prepared by : ABA

Date of Publication : 15.07.2015

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 : 15.07.2015

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 : 15.07.2015
Approved by : RBS	Revision : 0