



Key Parameters

V_{RRM}	= 1600V
$I_{F(AV)}$	= 50A
I_{FSM}	= 700A
$V_{F(TO)}$	= 0.85V
r_F	= 5.0m Ω

Features

- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Threaded stud

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers

Ordering Information

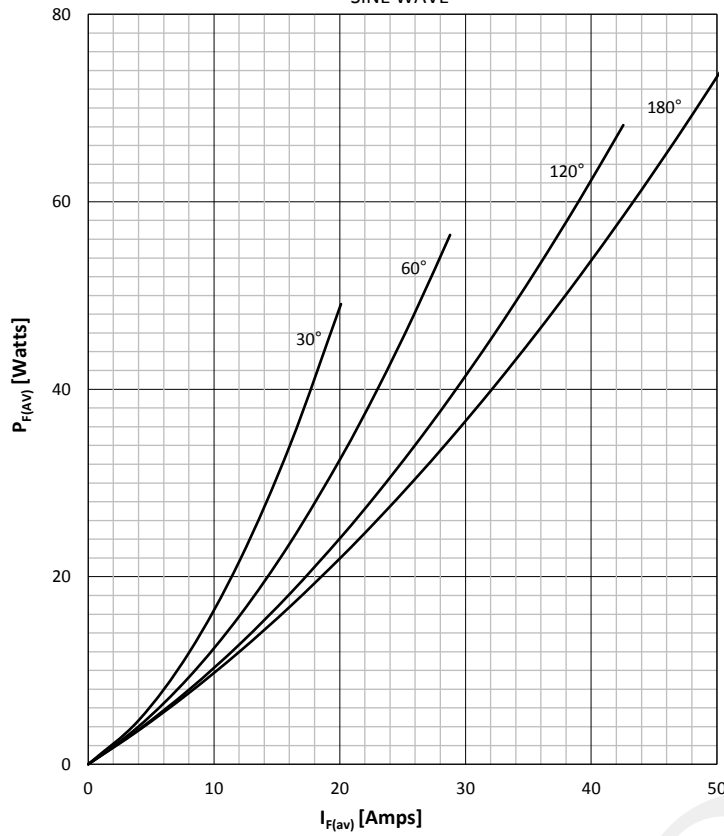
MS D	46	N	XX	M	B
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = V_{RRM}	Stud Threads M = Stud M8 X 1.25 U = 1/4" UNF M1 = Stud M6 X 1	Technology B = Solder Bond Technology
Order Code MS D46N16MB : 1600V V_{RRM} , Metric Stud, Diode with stud Cathode					

Prepared by : ABA	Date of Publication : 20.12.2016
Approved by : RBS	Revision : 2

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		180	200 - 1600	V
V _{RSM}	Non-repetitive peak reverse voltage		180	300 - 1700	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	180	5	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, T _c =115°C 180° sin ,50 Hz, T _c =125°C		50 45	A
I _{FRMS}	RMS current	T _c =115°C		80	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	700	A
			180	600	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	2450	A ² s
			180	1800	A ² s
V _F	Forward voltage	On-state current = 150A	180	1.60	V
V _{F(TO)}	Threshold voltage		180	0.85	V
r _F	Forward slope resistance		180	5.0	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case		0.85	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink		0.25	°C/W
T _j	Max. junction temperature			180	°C
T _{stg}	Storage temperature			-40 180	°C
M	Mounting torque			4	NM
W	Weight (Approx.)			25	gm
			Prepared by : ABA	Date of Publication : 20.12.2016	
			Approved by : RBS	Revision : 2	

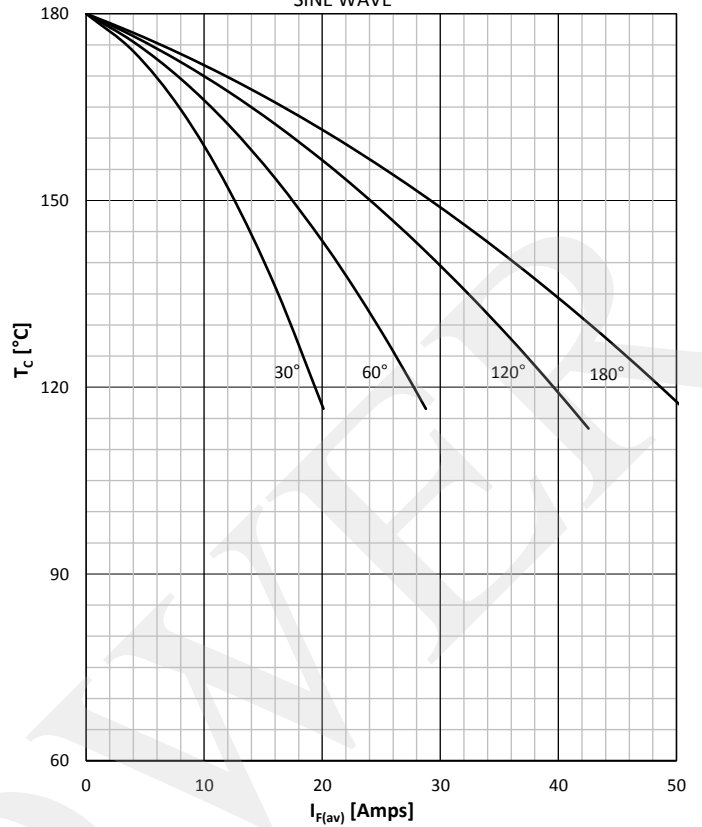
DISSIPATION CHARACTERISTICS

SINE WAVE



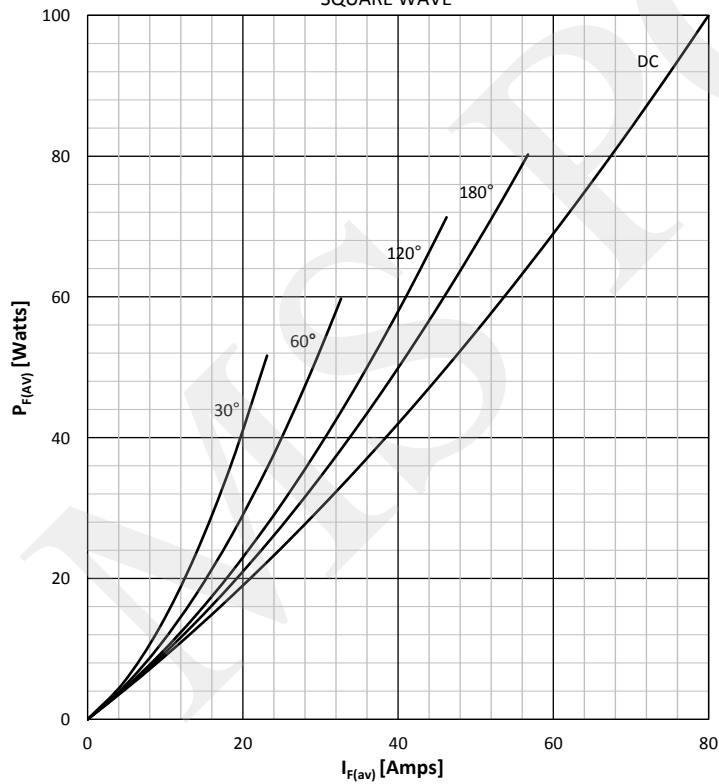
FORWARD CURRENT DERATING CURVE

SINE WAVE



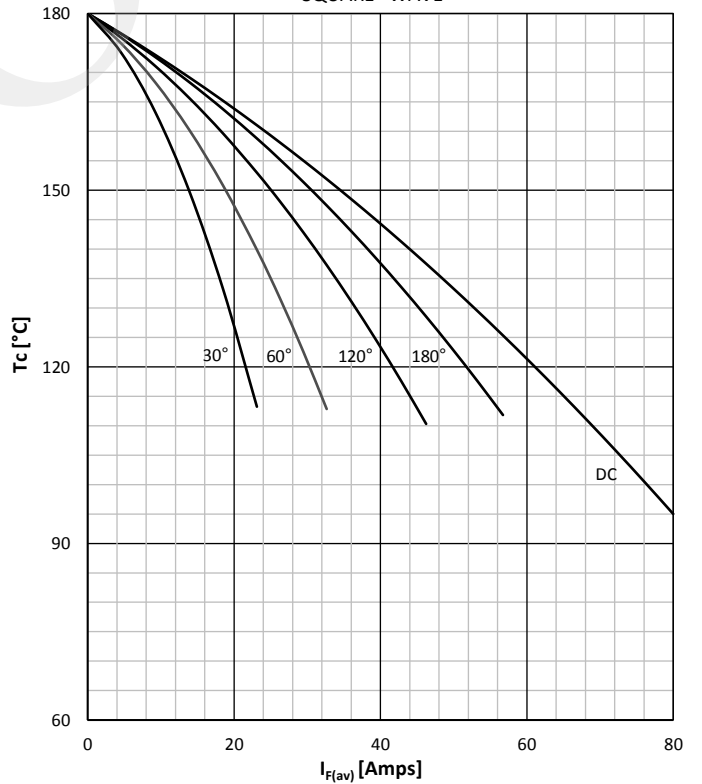
DISSIPATION CHARACTERISTICS

SQUARE WAVE



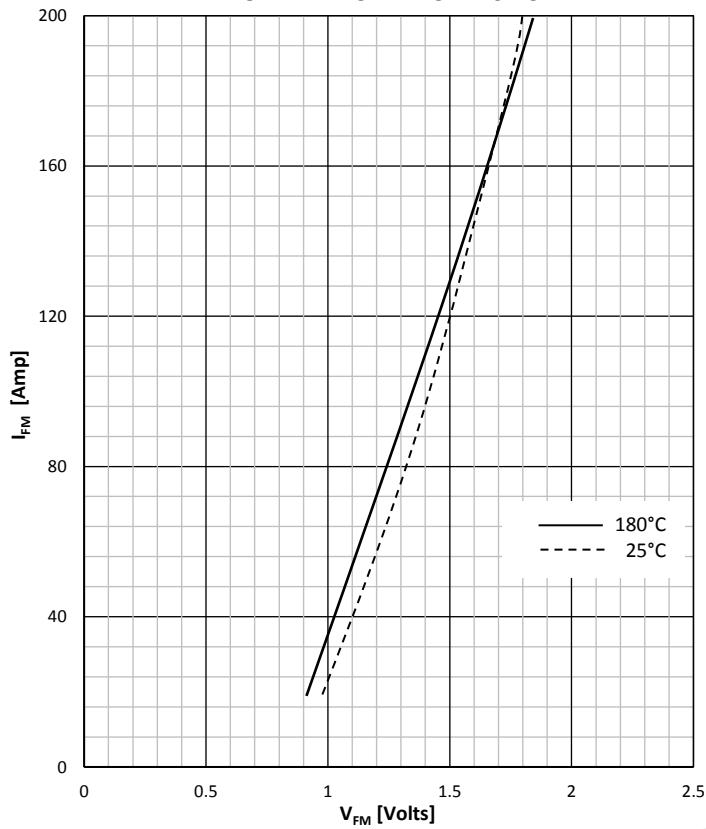
FORWARD CURRENT DERATING CURVE

SQUARE WAVE

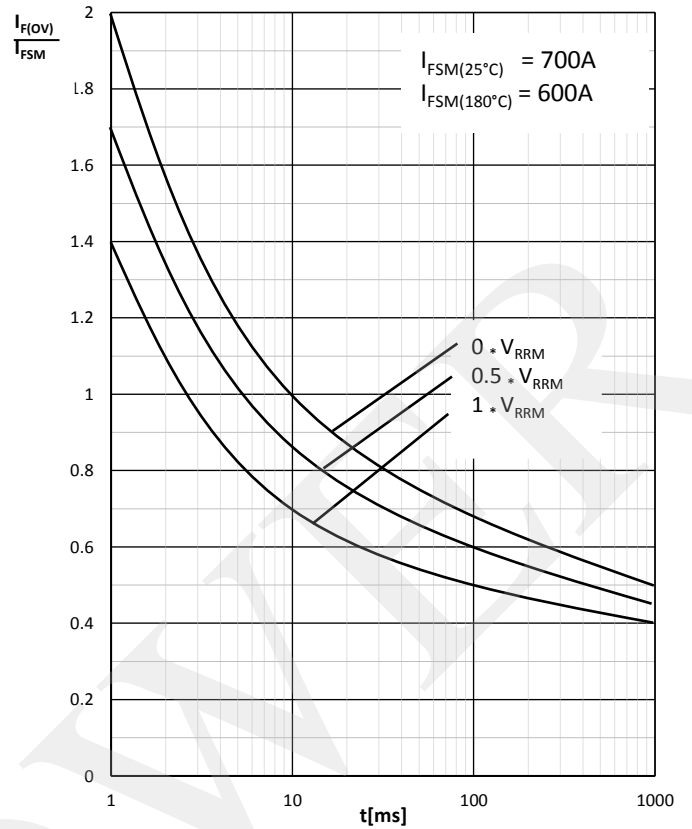


Prepared by : ABA	Date of Publication : 20.12.2016
Approved by : RBS	Revision : 2

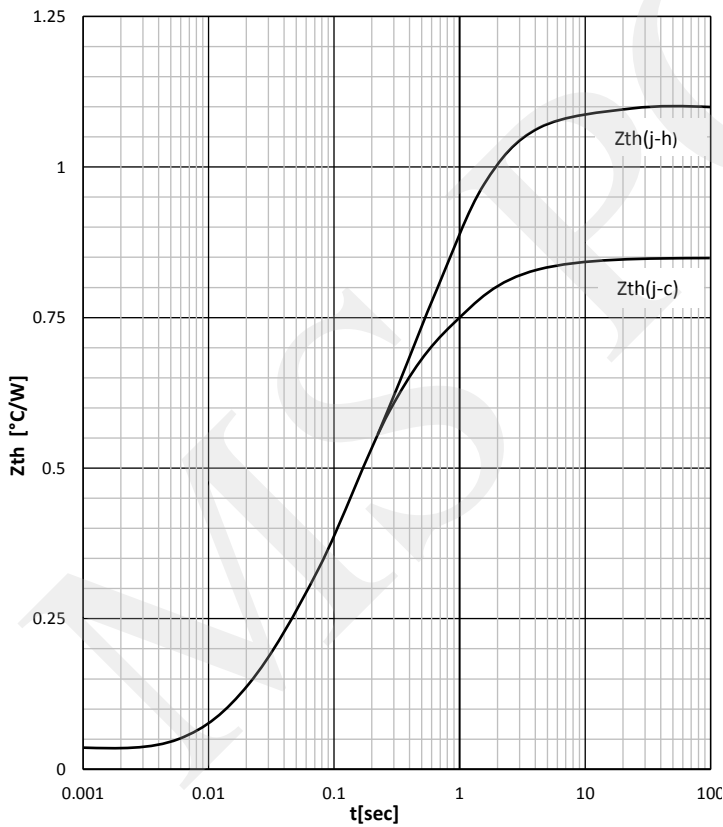
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

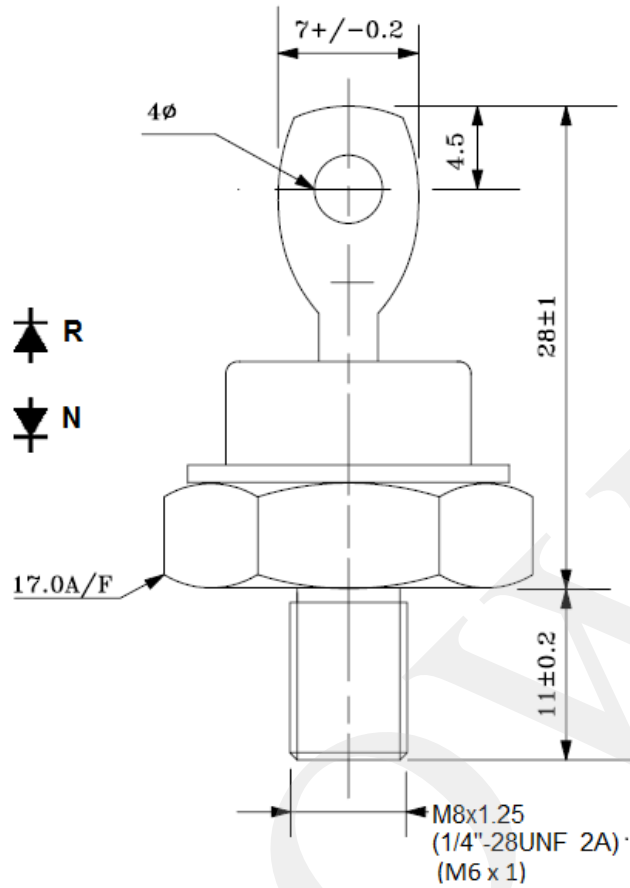


TRANSIENT THERMAL IMPEDANCE



Prepared by : ABA	Date of Publication : 20.12.2016
Approved by : RBS	Revision : 2

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 : 20.12.2016

Approved by : RBS

Revision : 2

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 : 20.12.2016
Approved by : RBS	Revision : 2