



Key Parameters

V_{DRM} / V_{RRM}	= 1800V
$I_{T(AV)}$	= 3015A
I_{TSM}	= 62kA
$V_{T(TO)}$	= 0.90V
r_T	= 0.11mΩ

Features

- Full blocking capability over wide temperature range
- High Surge current capability
- Hermetic metal case with ceramic insulator

Applications

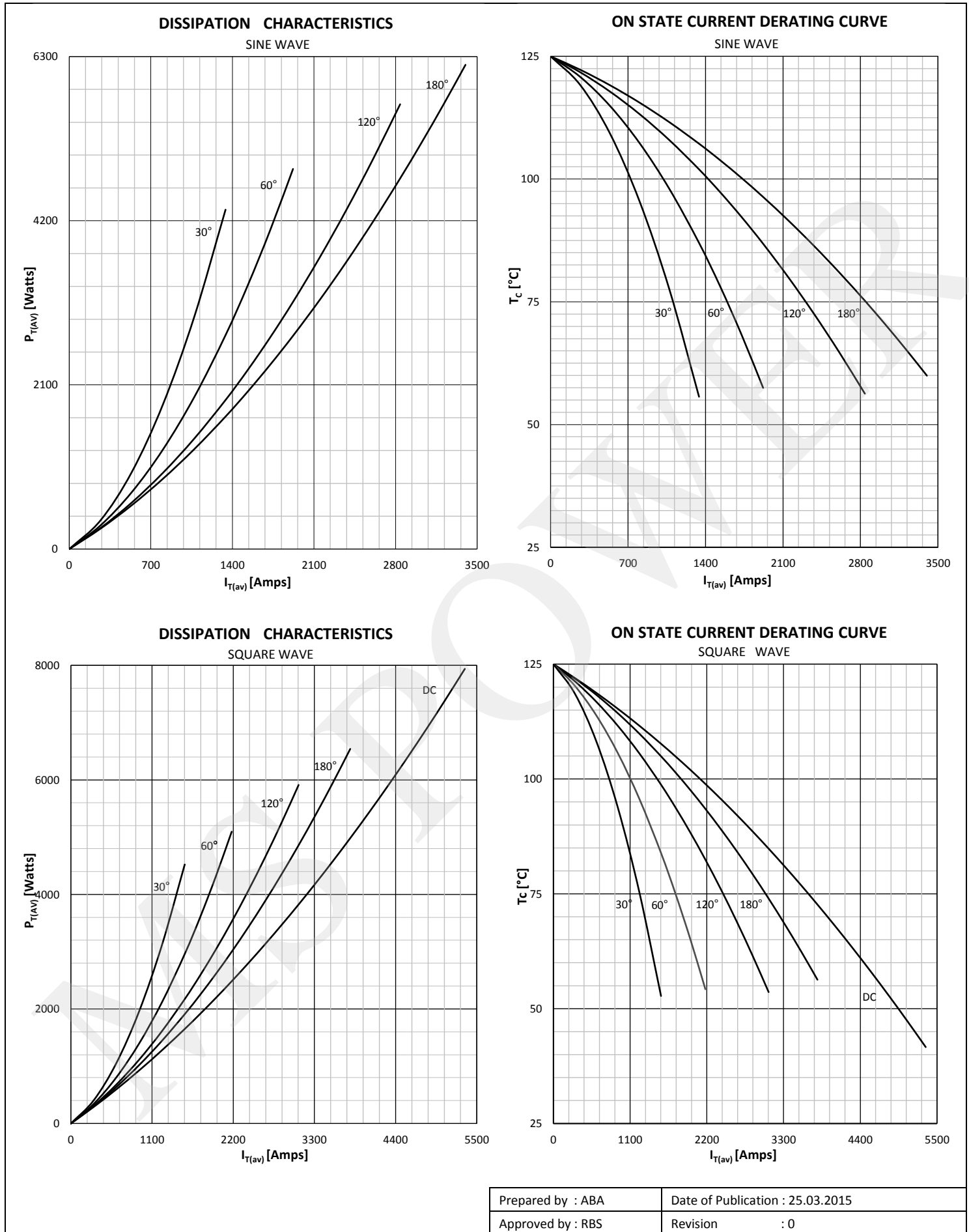
- Battery Chargers
- Medical Equipment
- UPS
- Power Supplies
- Motor control
- Controlled Rectifiers
- Transportation
- Induction Heating
- Welding

Ordering Information

MS T	3015	C	XX
Phase Control Thyristor	Current Code	C - Capsule package with Alloyed silicon technology	Voltage Code Code X 100 = V_{DRM}/V_{RRM}
Order Code MS T3015C18 : 1800V V_{DRM}, V_{RRM} , 26mm clamp height capsule thyristor			

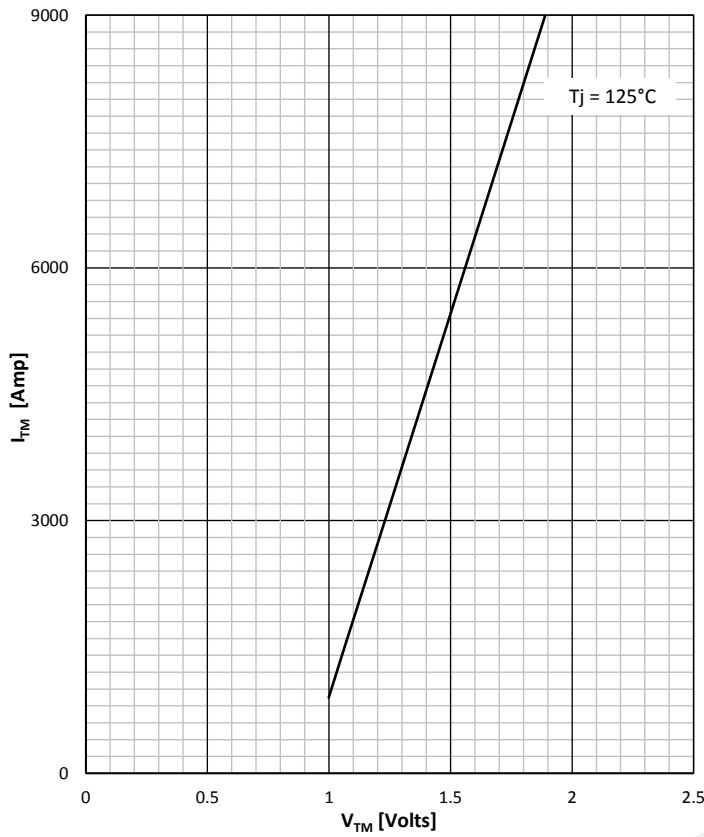
Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		125	400 - 1800	V
V _{RSM}	Non-repetitive peak reverse voltage		125	500 - 1900	V
V _{DRM}	Repetitive peak off-state voltage		125	400 - 1800	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	125	250	mA
I _{DRM}	Repetitive peak off-state current	V = V _{DRM}	125	250	mA
CONDUCTING					
I _{T(AV)}	Mean on state current	180° sin ,50 Hz, T _c =70°C, Double side cooled 180° sin ,50 Hz, T _c =60°C, Double side cooled		3015 3400	A
I _{RMS}	RMS on-state current	T _c =60°C, Double side cooled		5338	A
I _{TSM}	Surge on-state current	Sine wave, 10 ms Without reverse voltage	25	62000	A
			125	60000	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	19220 x 10 ³	A ² s
			125	18000 x 10 ³	A ² s
V _T	On-state voltage	On-state current = 3000A	125	1.23	V
V _{T(TO)}	Threshold voltage		125	0.90	V
r _T	On-state slope resistance		125	0.11	mΩ
SWITCHING					
di/dt	Critical rate of rise of on-state current	For 67%V _{DRM} to 5000A, Gate 30V/10Ω, t _r <0.5μs	125	200	A/μs
dv/dt	Critical rate of rise of off-state voltage	V _{DR} = 67%V _{DRM}	125	1000	V/μs
GATE					
I _{gt}	Gate trigger current	V _D =6V	25	250	mA
V _{gt}	Gate trigger voltage	V _D =6V	25	3.0	V
I _H	Holding current	V _D =6V, gate open circuit	25	200	mA
I _L	Latching current	V _D =6V	25	1000	mA
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.010	°C/W
R _{th(j-c)}	Thermal impedance, rec120°	Junction to case, Double side cooled		0.0115	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, Double side cooled		0.003	°C/W
T _j	Max. junction temperature			125	°C
T _{stg}	Storage temperature			-40 ... 125	°C
M	Clamping Force			50 - 62	kN
W	Weight (Approx.)			1450	gm
			Prepared by : ABA	Date of Publication : 25.03.2015	
			Approved by : RBS	Revision : 0	

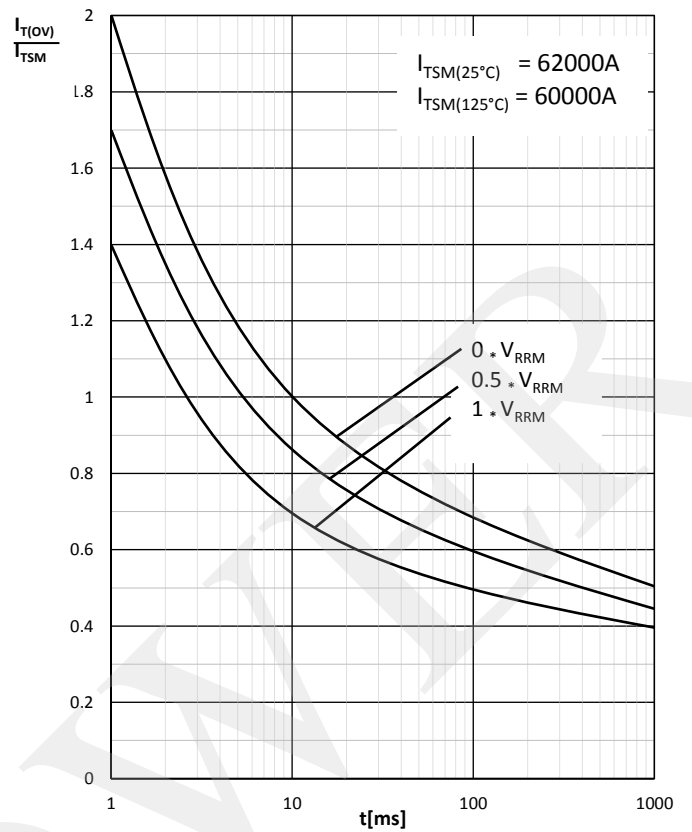


Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0

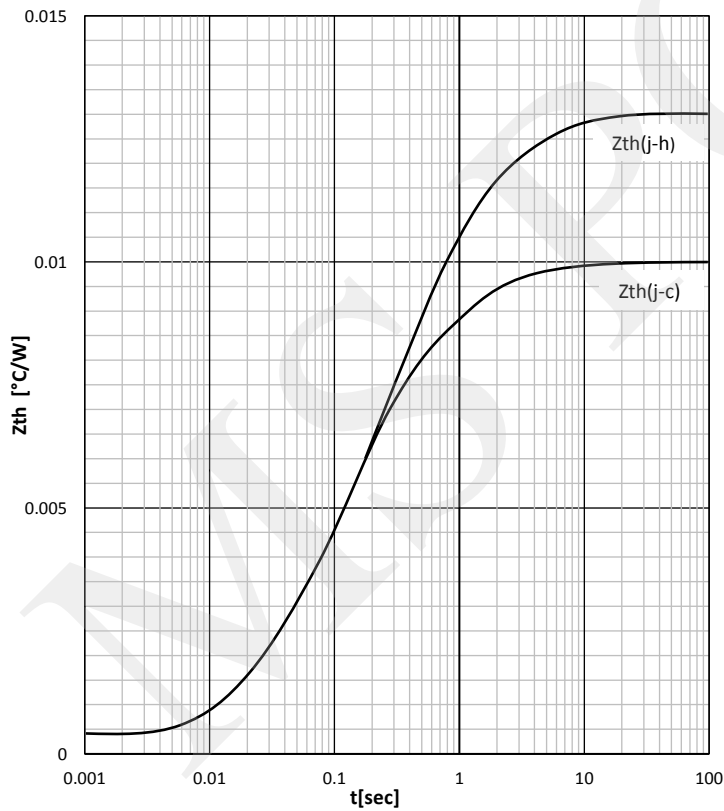
ON STATE CHARACTERISTIC



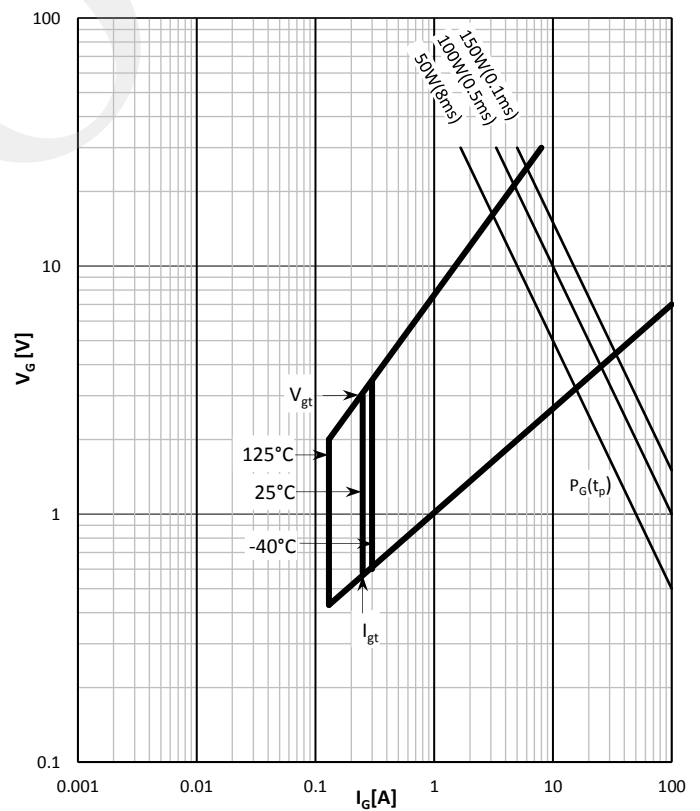
SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



GATE TRIGGER CHARACTERISTICS



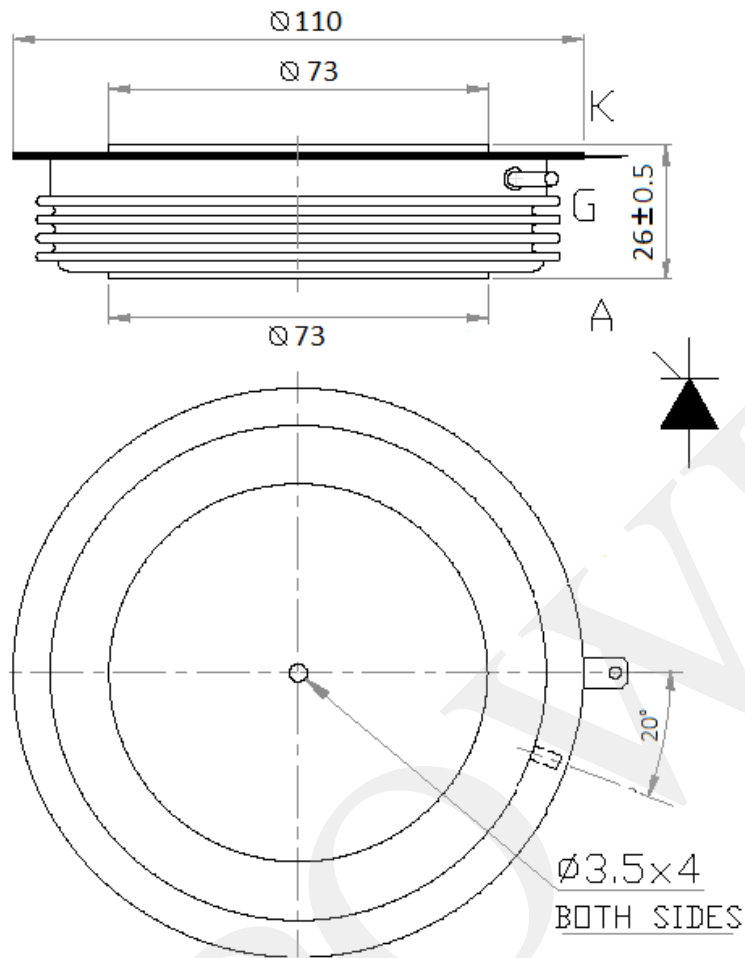
Prepared by : ABA

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