



Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 500A
I_{FSM}	= 15000A
$V_{F(TO)}$	= 0.84V
r_F	= 0.24mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Pressure contacts technology for high reliability
- UL Recognized, file no. E505556


Applications

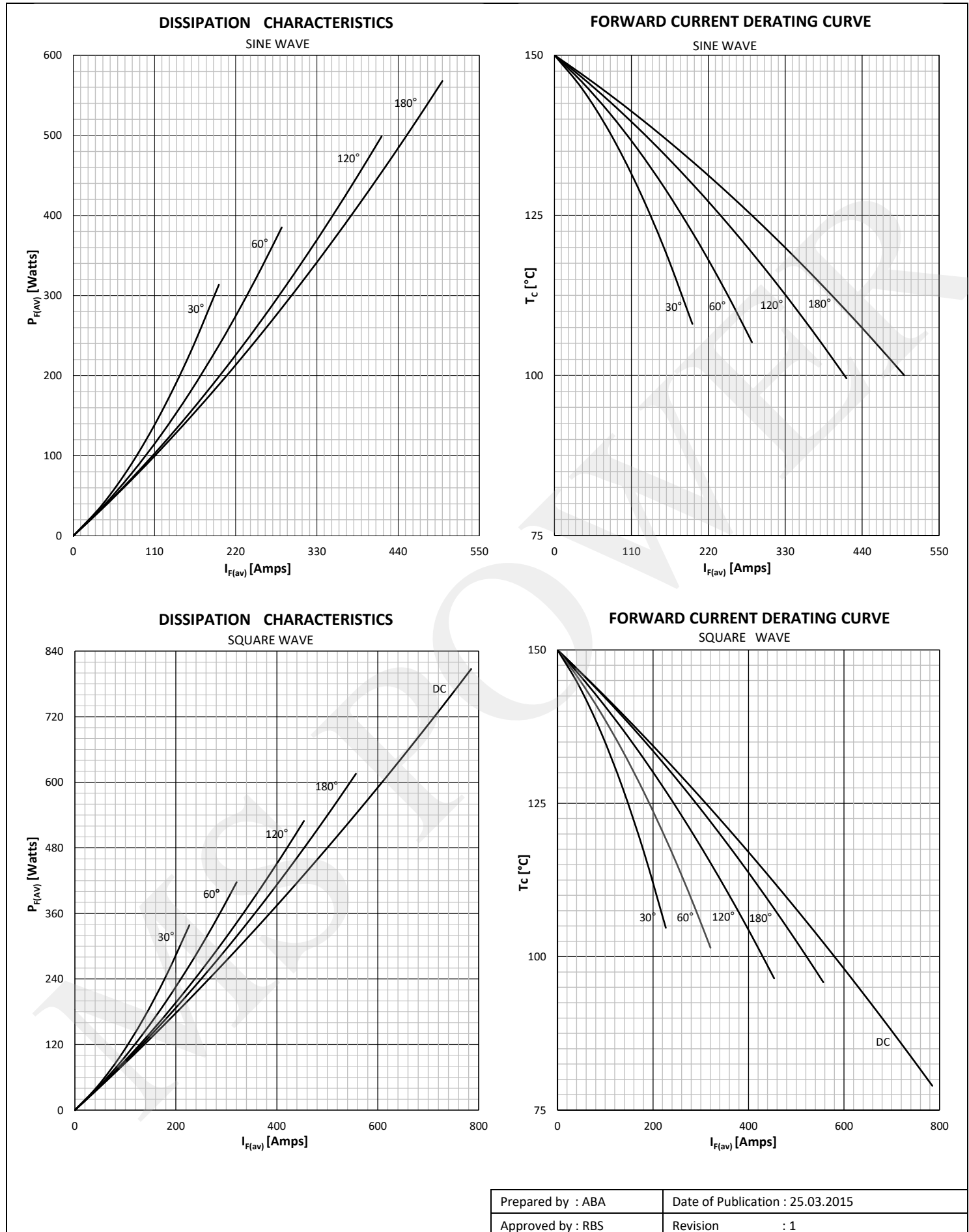
- Power Supplies
- Uncontrolled Rectifiers
- Field supply for DC motors
- Battery Chargers
- UPS

Ordering Information

MS	DD	500	K	18
Fixed code	DD- Diode- Diode Module	Current Code	Technology K = Pressure Contact Technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS DD500K18 : 1800V V_{RRM} , Diode-Diode Module				

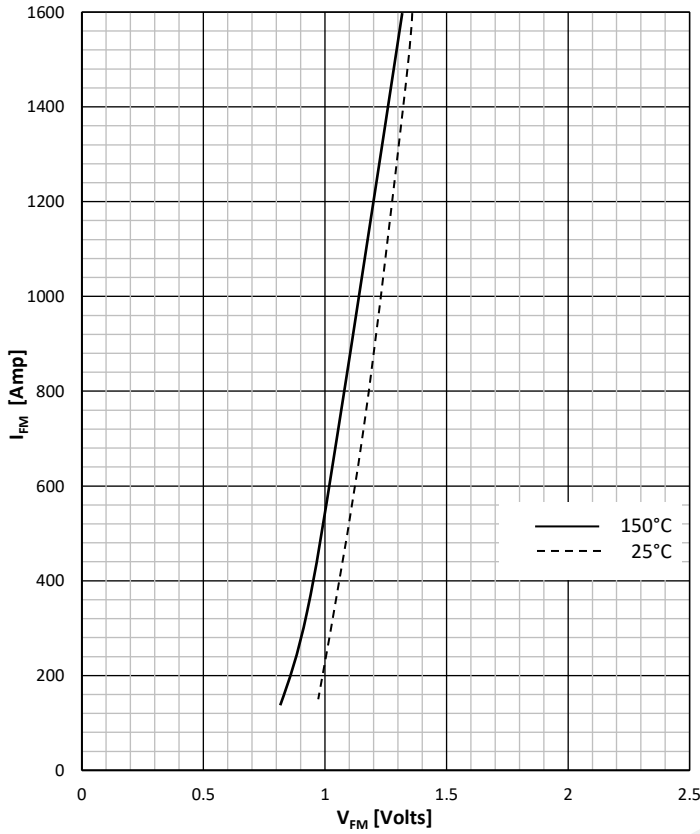
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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	200 - 1800	V
V _{RSM}	Non-repetitive peak reverse voltage		150	300 - 1900	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	150	40	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, T _c =100°C		500	A
I _{FRMS}	RMS current			785	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	15000	A
			150	14000	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	1125 x 10 ³	A ² s
			150	980 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1500A	25	1.35	V
V _{F(TO)}	Threshold voltage		150	0.84	V
r _F	Forward slope resistance		150	0.24	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, per arm per module		0.088 0.044	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, per arm per module		0.030 0.015	°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		3.0	KV
M1	Mounting torque			6 ± 15%	Nm
M2	Terminal connection torque			12 ± 10%	Nm
W	Weight (Approx.)			1450	gm
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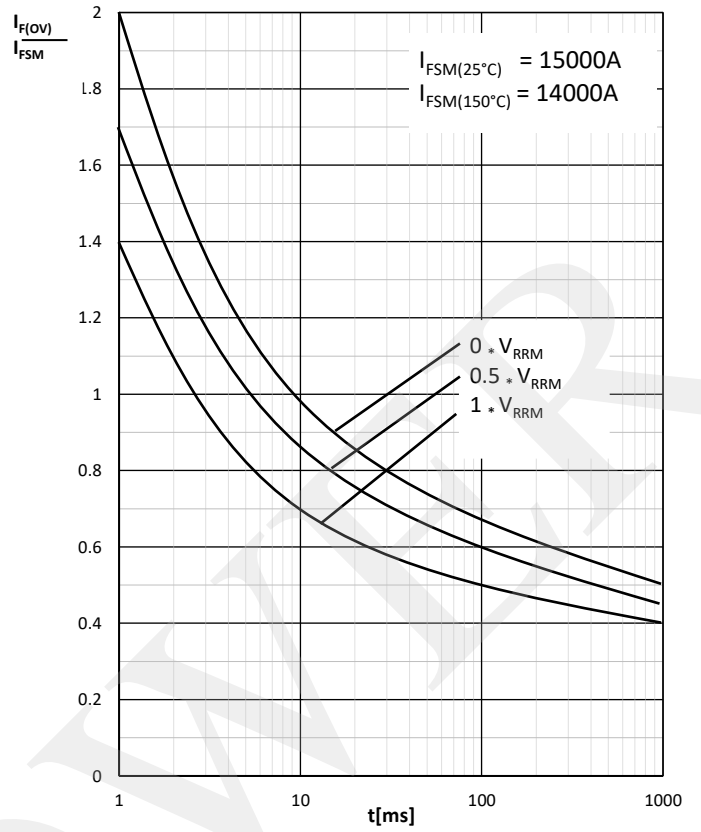


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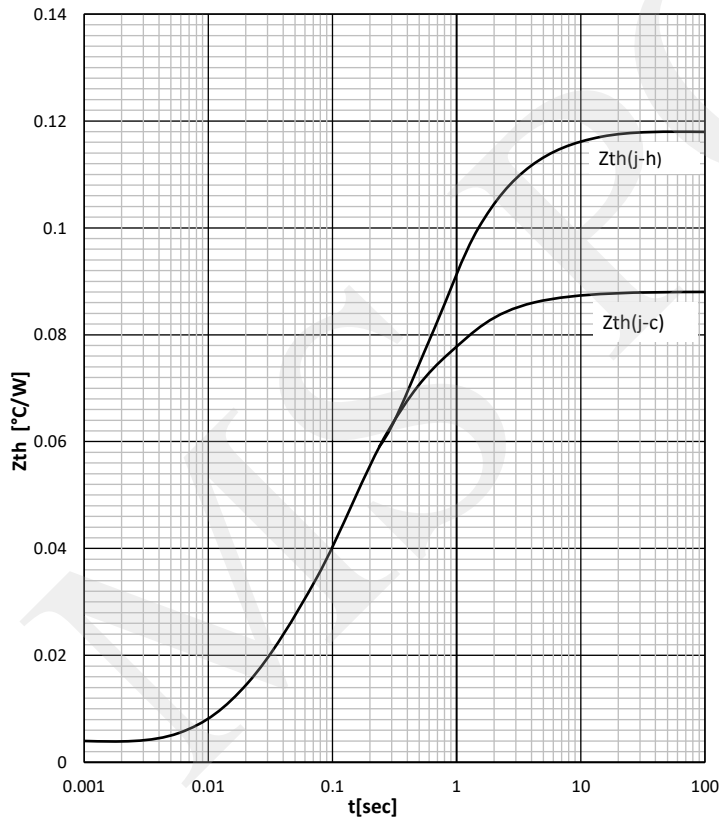
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

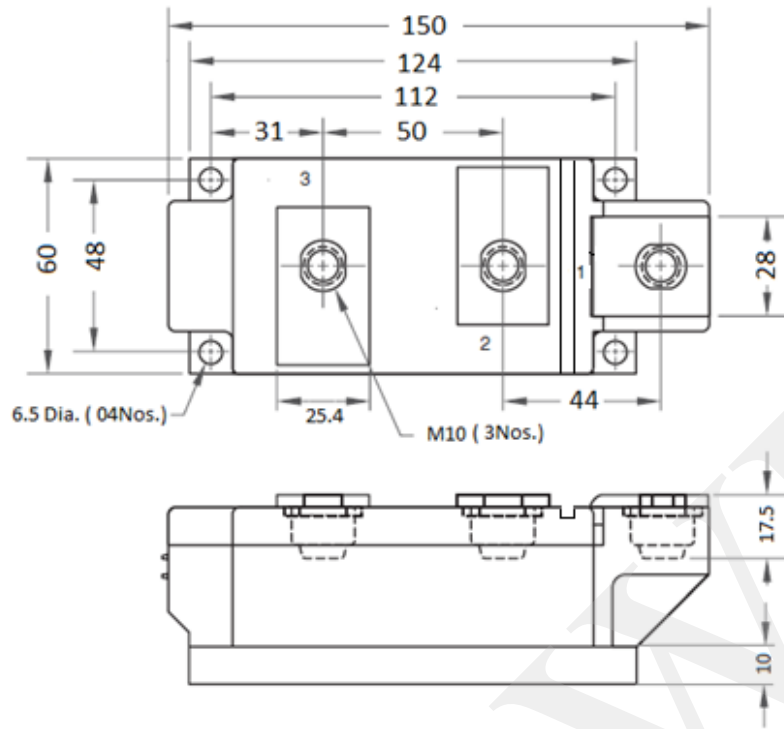


TRANSIENT THERMAL IMPEDANCE, PER CHIP

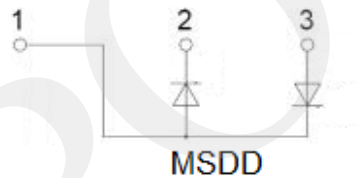


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Outline



Note : All dimensions are in mm.
Tolerance : $\pm 0.5\text{mm}$



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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