MS DD104

Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 104A
I_{FSM}	= 2500A
$V_{F(TO)}$	= 0.85V
r_F	= 1.5mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability

Applications

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

Ordering Information

MS	DD	104	S	X X	X X
Fixed code	DD- Diode- Diode Module	Current Code	Technology S = Solder Bond Technology	Voltage Code Code X 100 = V_{RRM}	None - Standard connection AA - Common Anode KK - Common Cathode
Order Code MS DD104S18 KK : 1800V V_{RRM}, Common Cathode , Diode-Diode Module					

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MS DD104

Symbol	Characteristic	Conditions	Tj [°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	15	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, T_c=100°C		104	A
I_{FRMS}	RMS current			164	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	2500	A
			150	2000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	31200	A^2s
			150	20000	A^2s
V_F	Forward voltage	On-state current = 300A	25	1.40	V
$V_{F(TO)}$	Threshold voltage		150	0.85	V
r_F	Forward slope resistance		150	1.5	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, per arm per module		0.39 0.20	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, per arm per module		0.2 0.1	°C/W
T_j	Max. junction temperature			150	°C
T_{stg}	Storage temperature			-40 125	°C
V_{ISOL}	Insulation test voltage, RMS	F=50Hz, 1min		2.5	KV
M1	Mounting torque			5 ± 15%	Nm
M2	Terminal connection torque			3 ± 15%	Nm
W	Weight (Approx.)			105	gm

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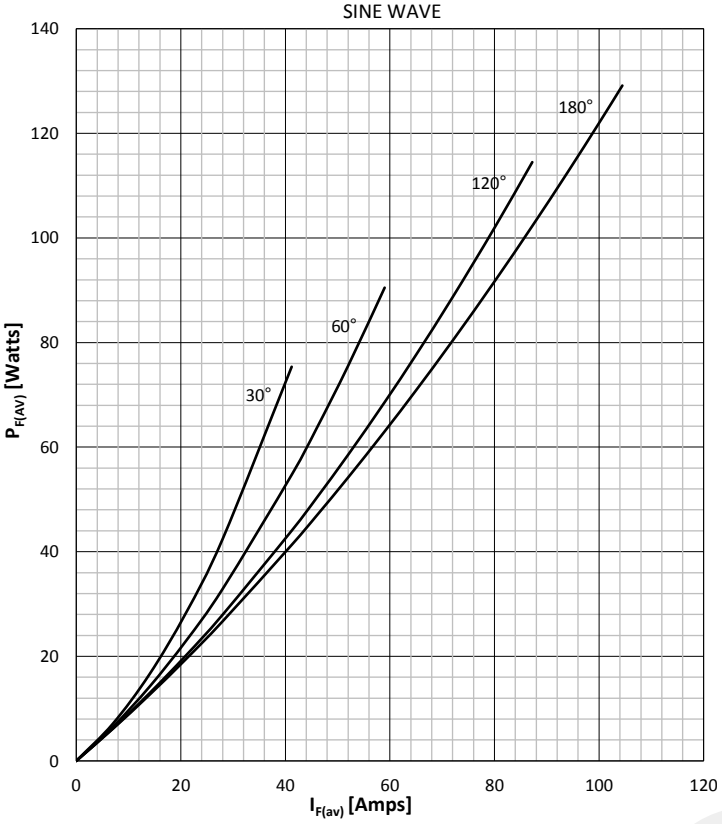
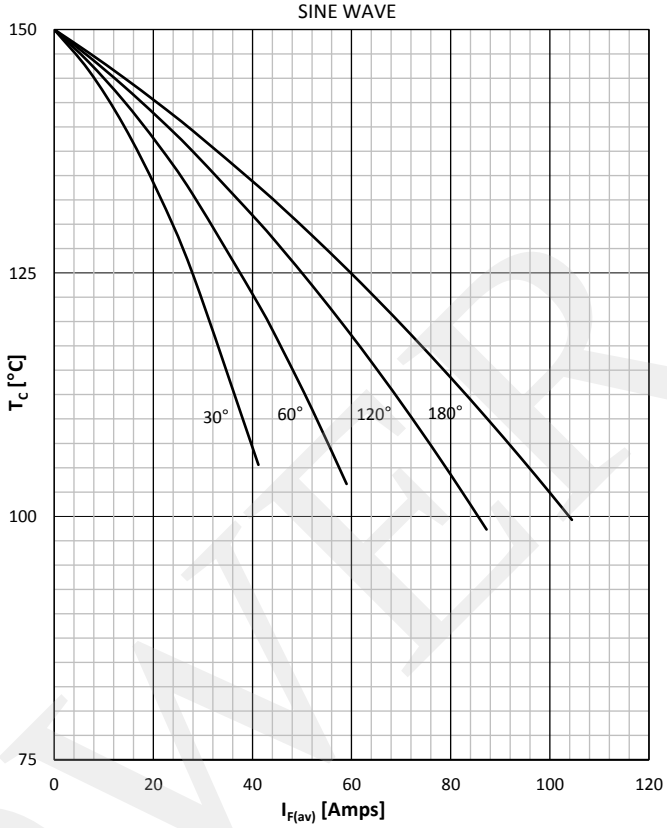
DISSIPATION CHARACTERISTICS

SINE WAVE



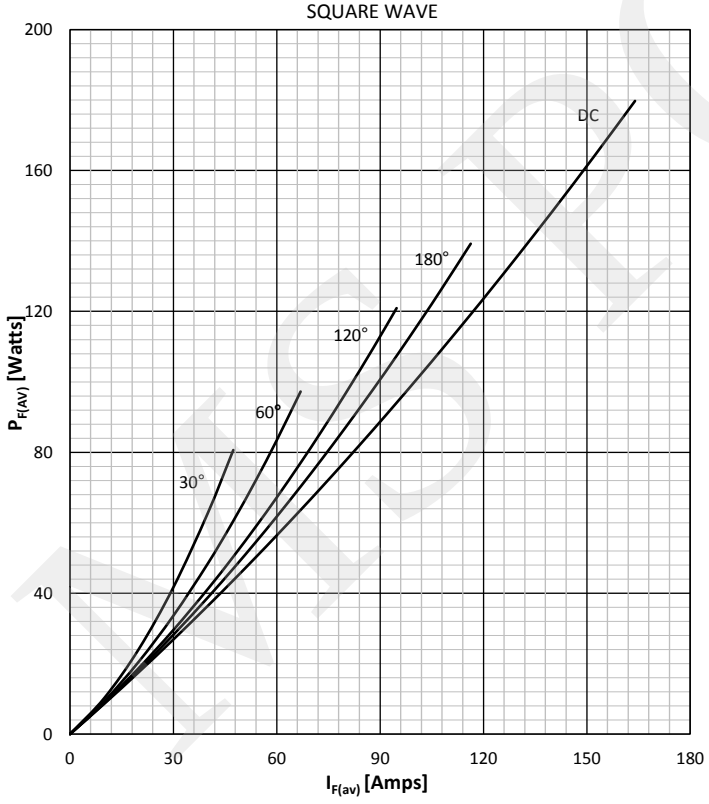
FORWARD CURRENT DERATING CURVE

SINE WAVE



DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

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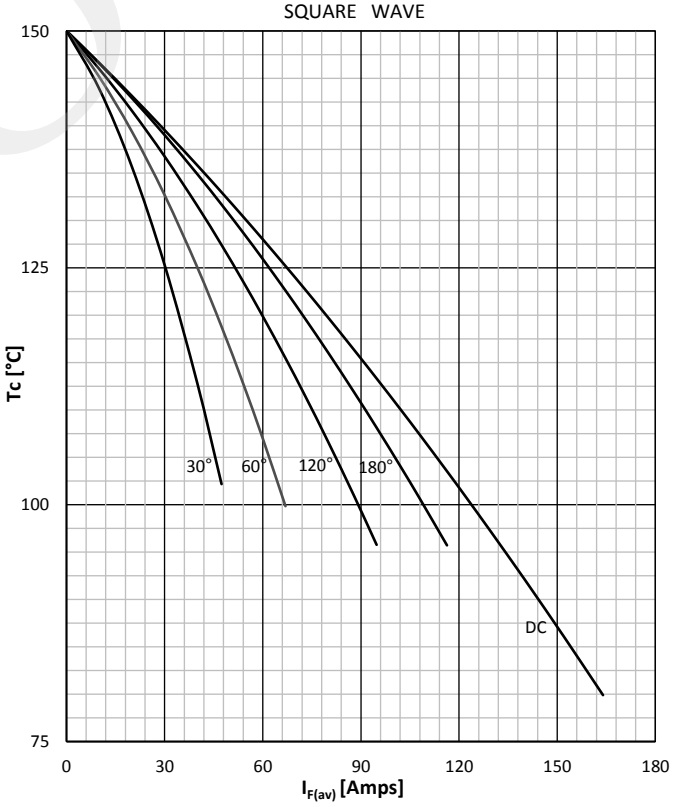

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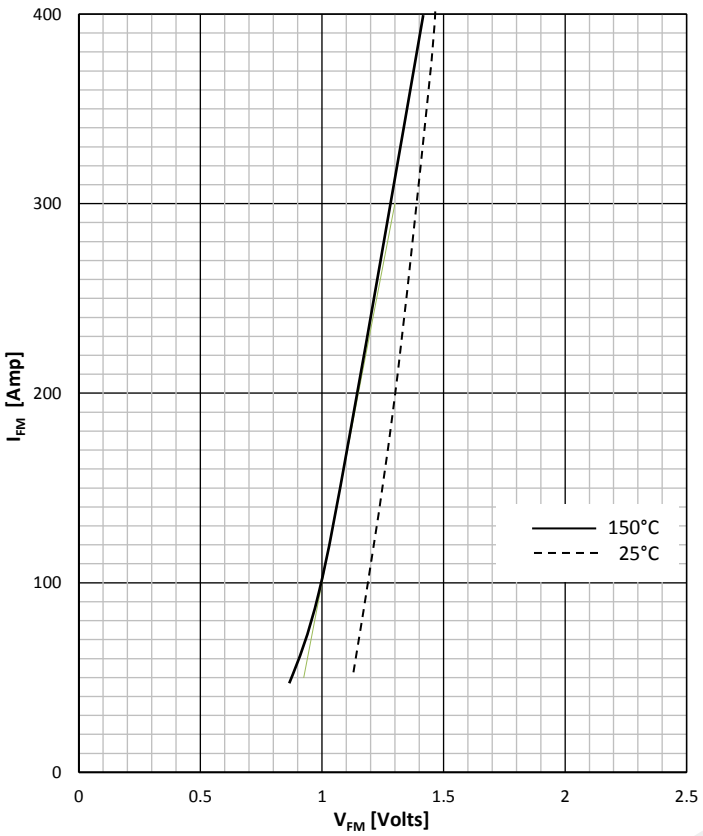
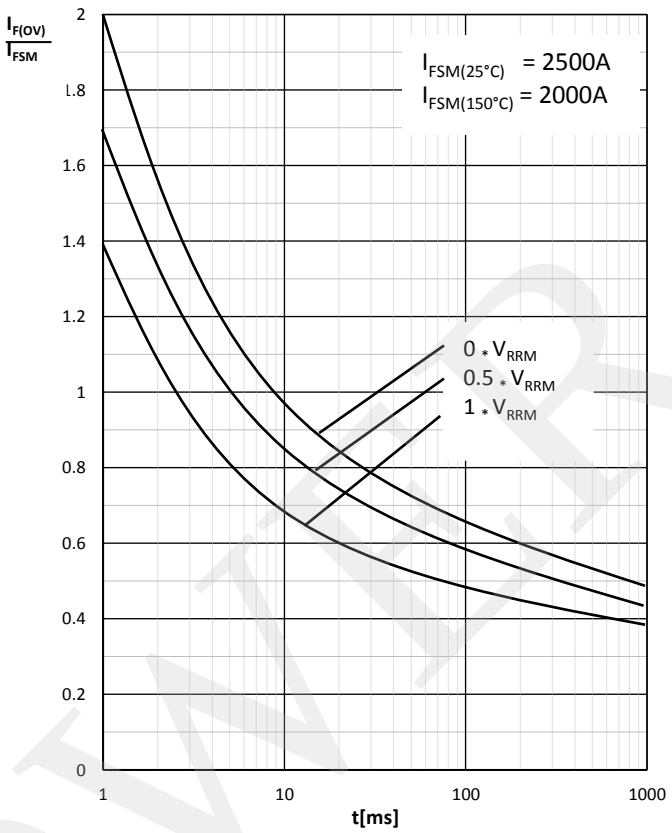
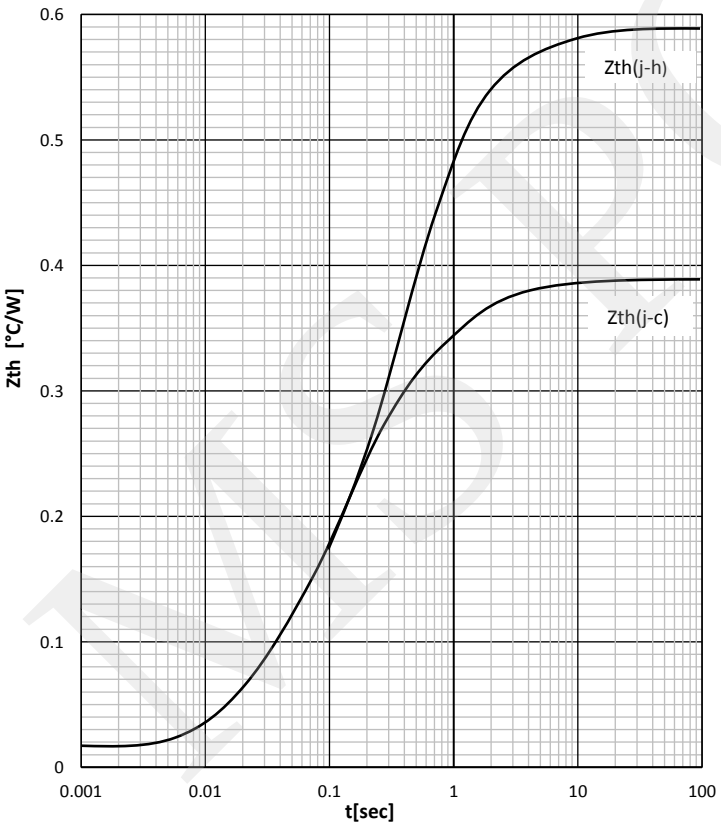
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP



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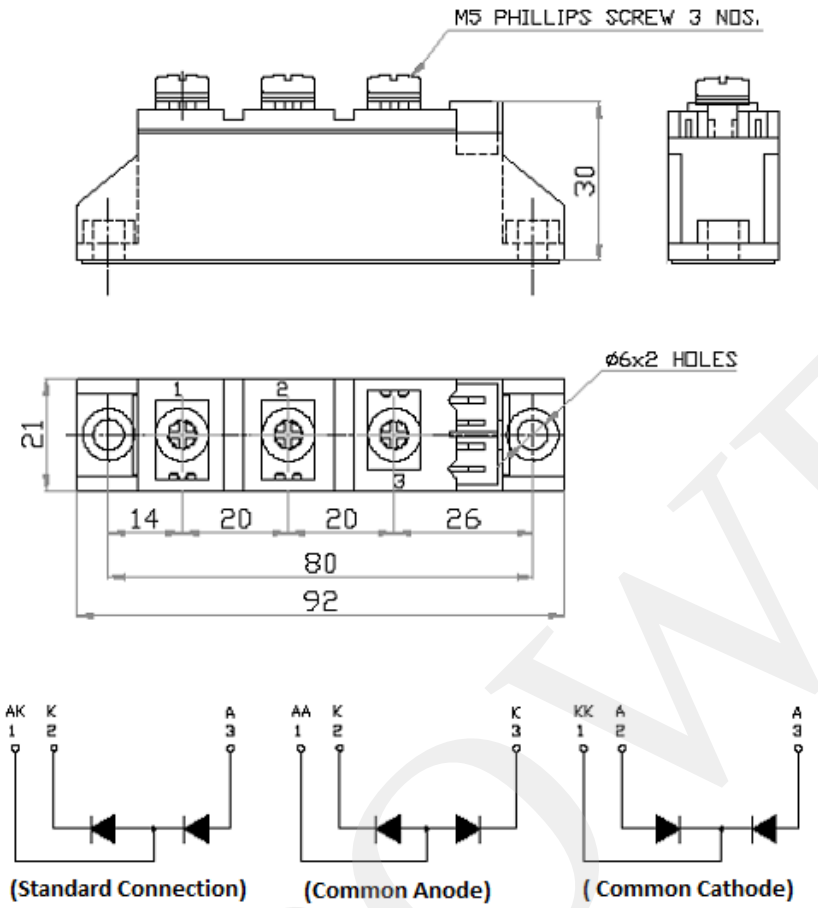
Outline



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

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