MS DD120

Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 120A
I_{FSM}	= 2550A
$V_{F(TO)}$	= 0.85V
r_F	= 1.4mΩ

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	120	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 DD120S18KK : 1800V V_{RRM}, Common Cathode , Diode-Diode Module					

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

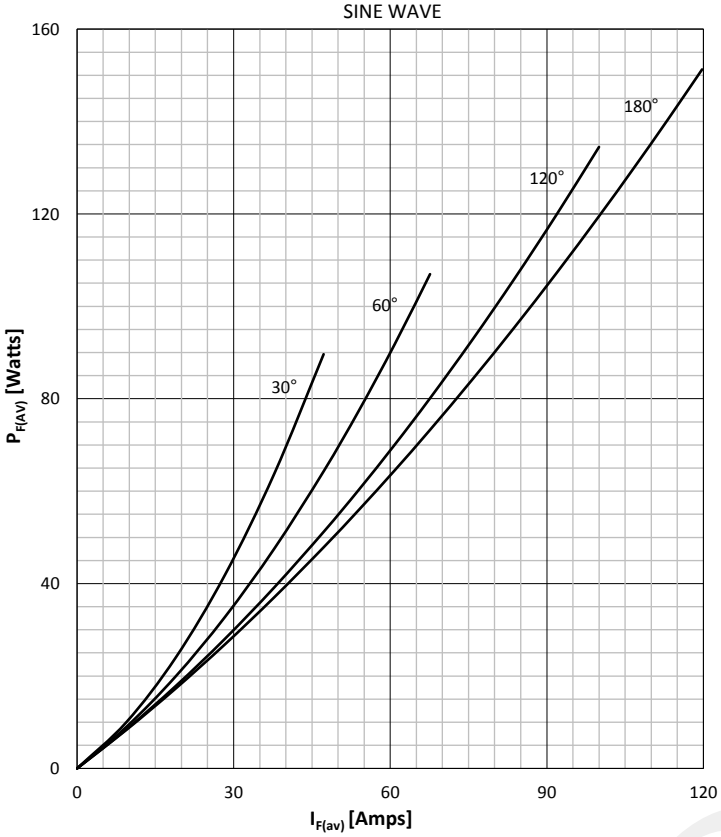
MS DD120

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		120	A
I_{FRMS}	RMS current			188	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	2550	A
			150	2050	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	32500	A^2s
			150	21000	A^2s
V_F	Forward voltage	On-state current = 350A	25	1.44	V
$V_{F(TO)}$	Threshold voltage		150	0.85	V
r_F	Forward slope resistance		150	1.4	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, per arm per module		0.33 0.17	°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

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

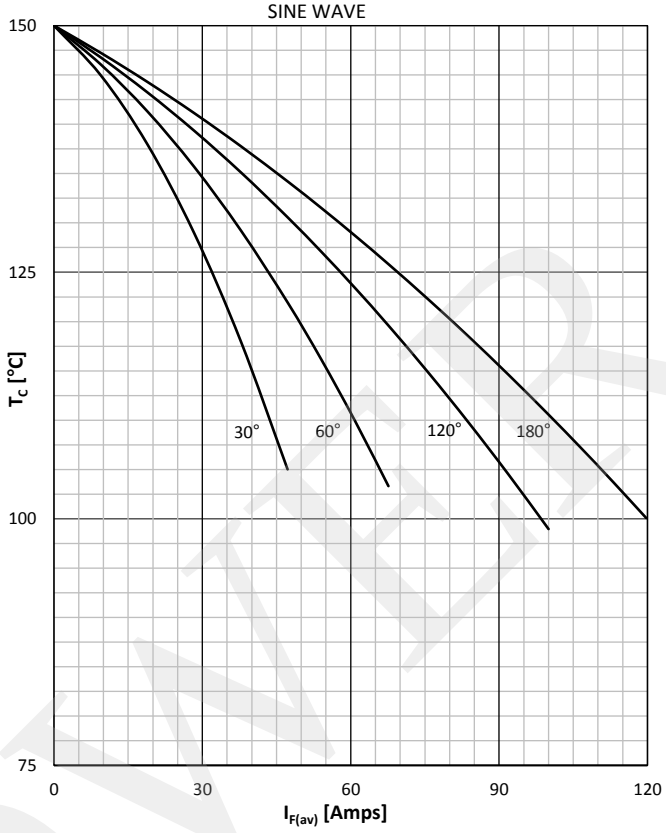
DISSIPATION CHARACTERISTICS

SINE WAVE



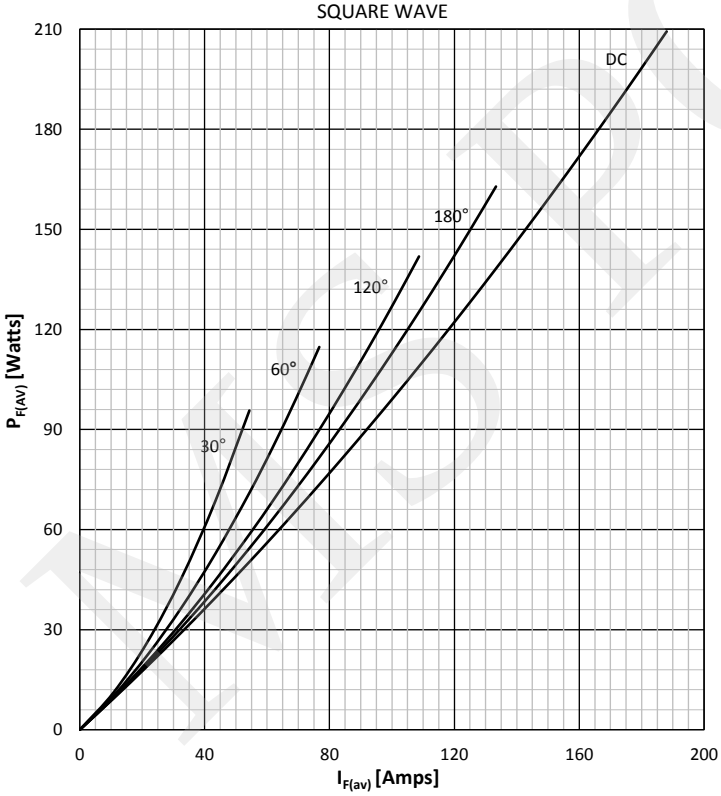
FORWARD CURRENT DERATING CURVE

SINE WAVE



DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

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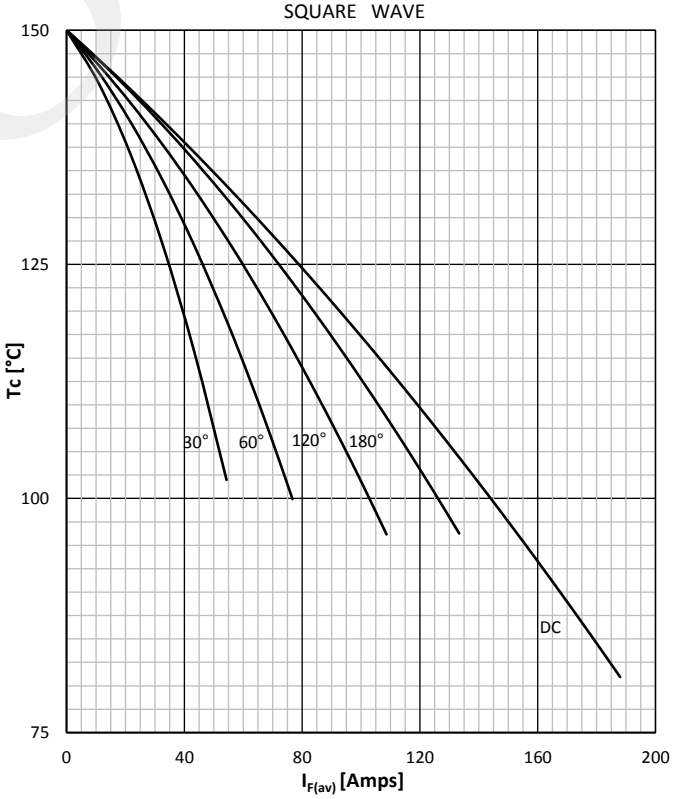
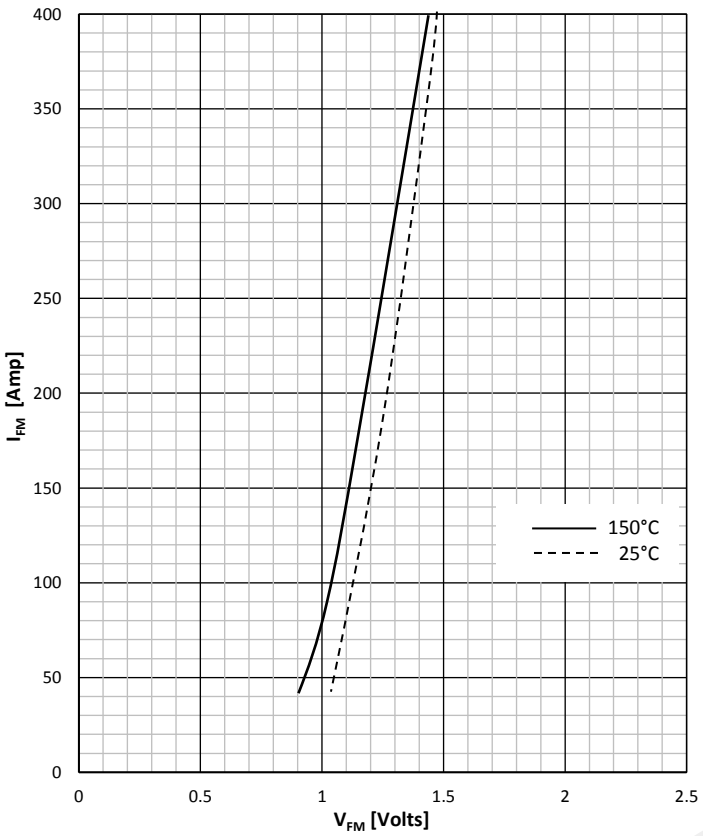
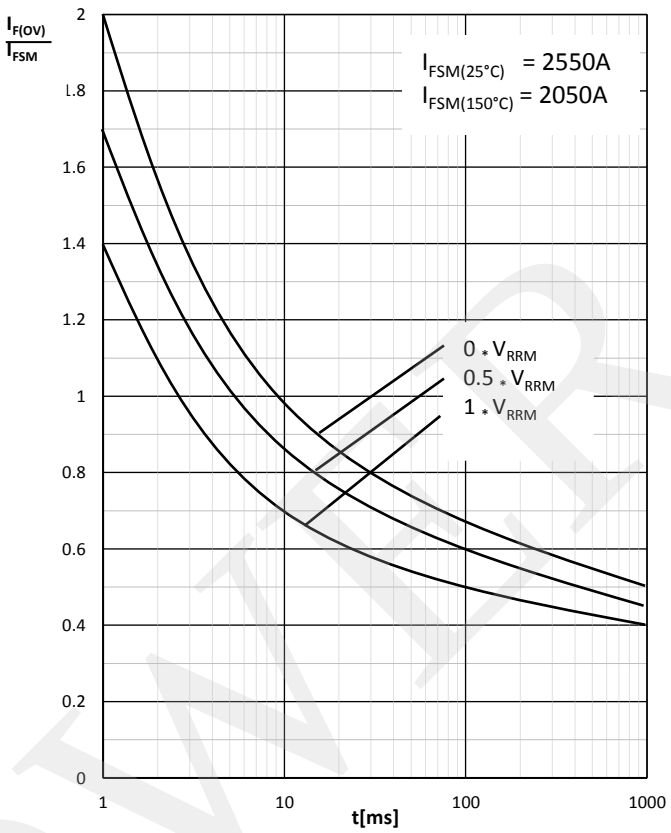


Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 0

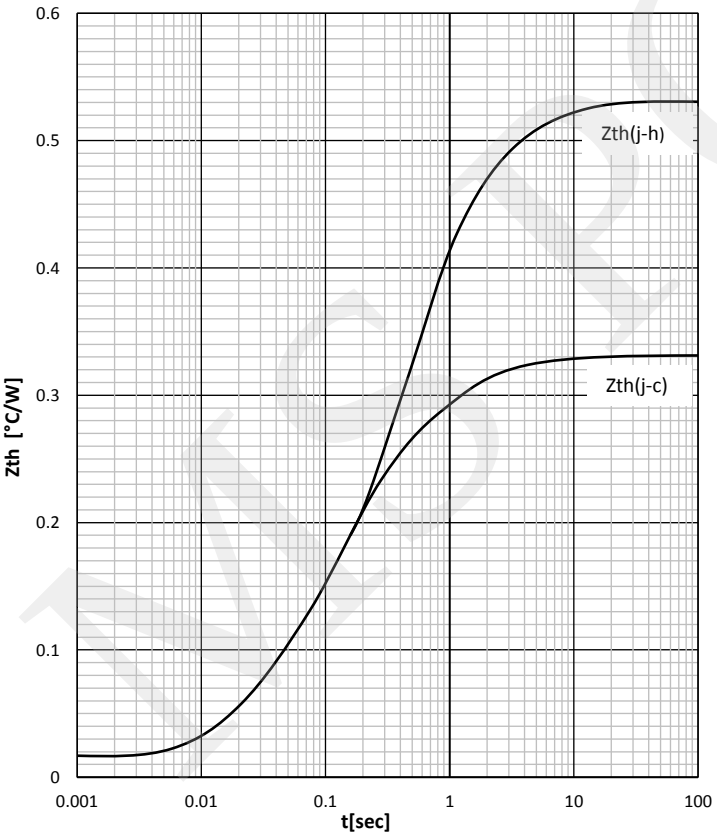
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP



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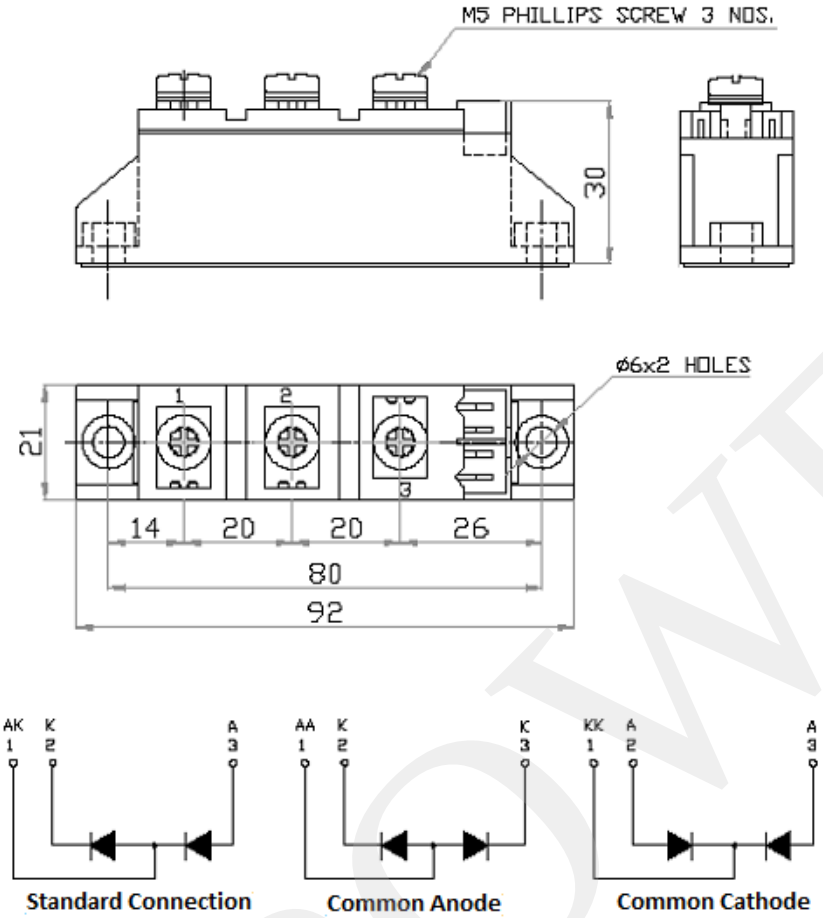
Outline



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Prepared by : ABA	Date of Publication : 25.03.2015
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