MS DD380

Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 380A
I_{FSM}	= 14000A
$V_{F(TO)}$	= 0.75V
r_F	= 0.32mΩ

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	380	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 DD380K18 : 1800V V_{RRM}, Diode-Diode Module				

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MS DD380

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		150	1800	V
V_{RSM}	Non-repetitive peak reverse voltage		150	1900	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	150	30	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, T_c=100°C		380	A
I_{FRMS}	RMS current			596	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	14000	A
			150	11500	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	980 x 10^3	A^2s
			150	661 x 10^3	A^2s
V_F	Forward voltage	On-state current = 1500A	25	1.40	V
$V_{F(TO)}$	Threshold voltage		150	0.75	V
r_F	Forward slope resistance		150	0.32	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, per arm per module		0.125 0.063	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, per arm per module		0.04 0.02	°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.)			650	gm
	File No.			E505556	

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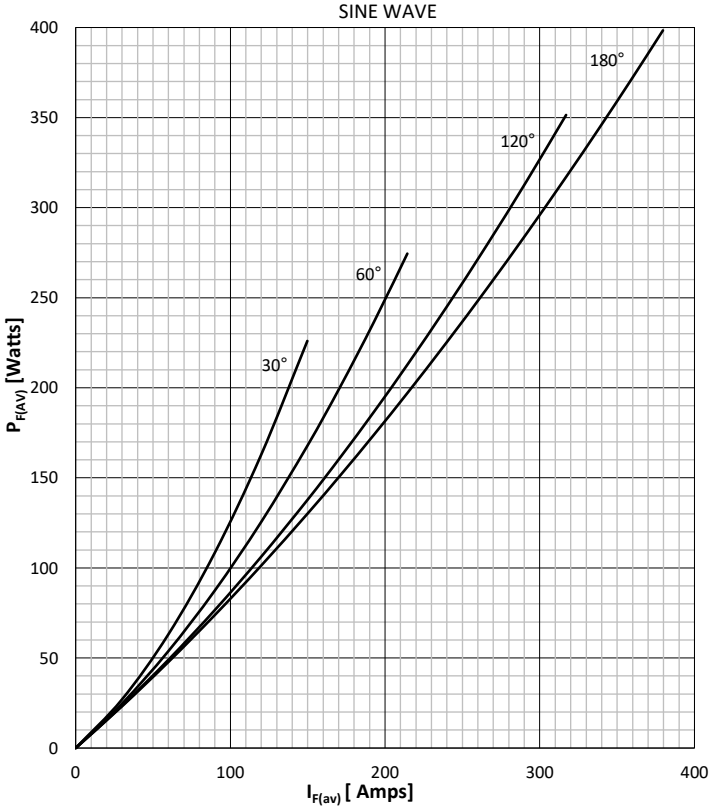
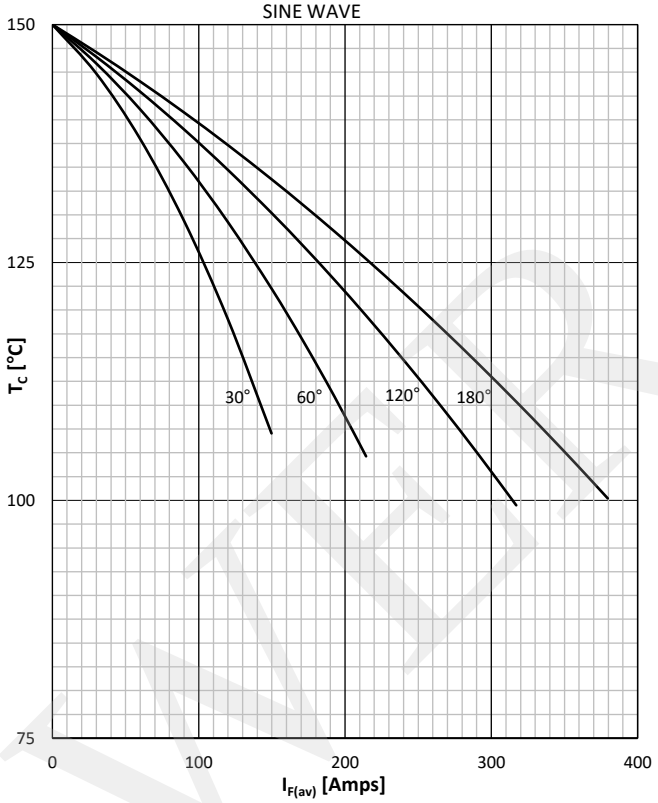
DISSIPATION CHARACTERISTICS

SINE WAVE



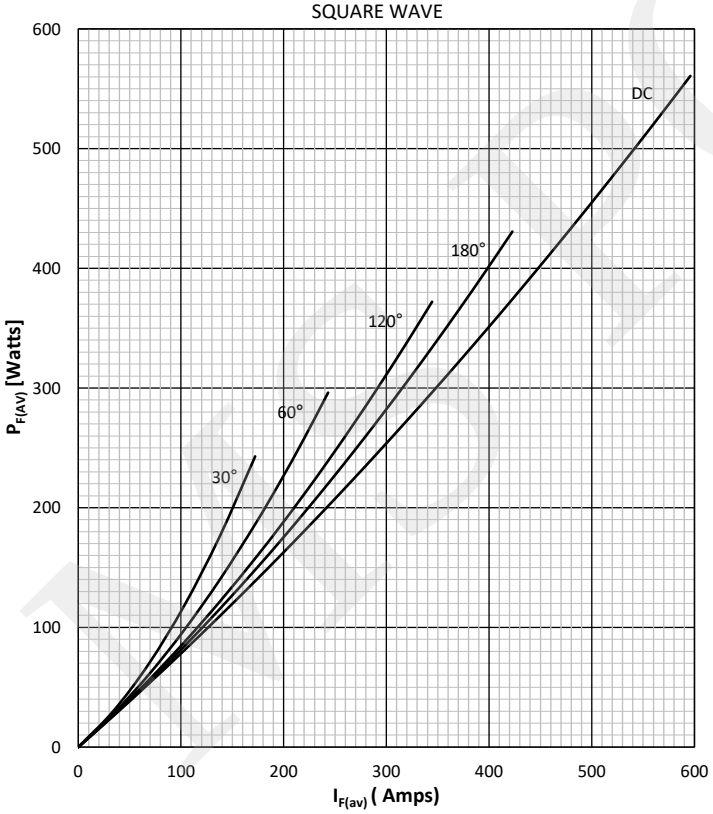
FORWARD CURRENT DERATING CURVE

SINE WAVE



DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

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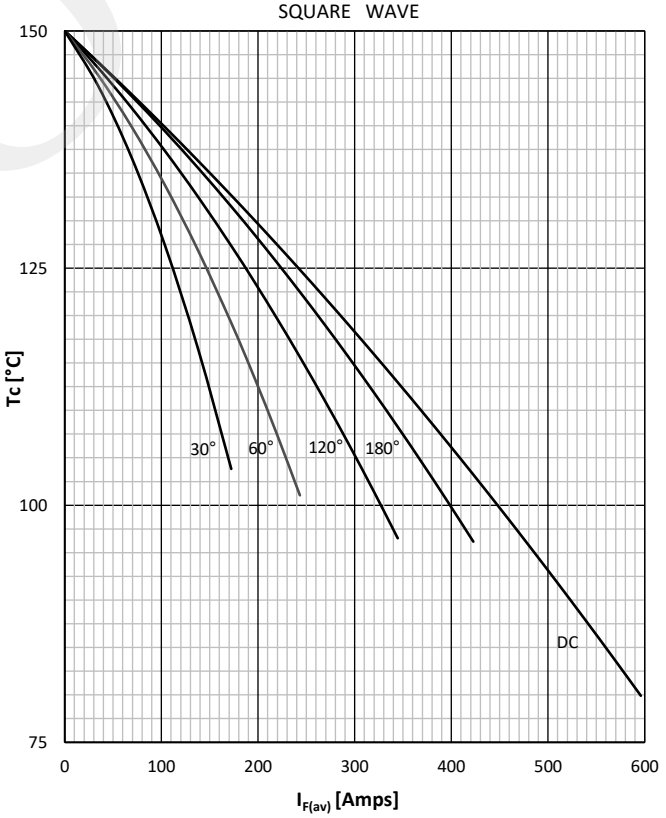

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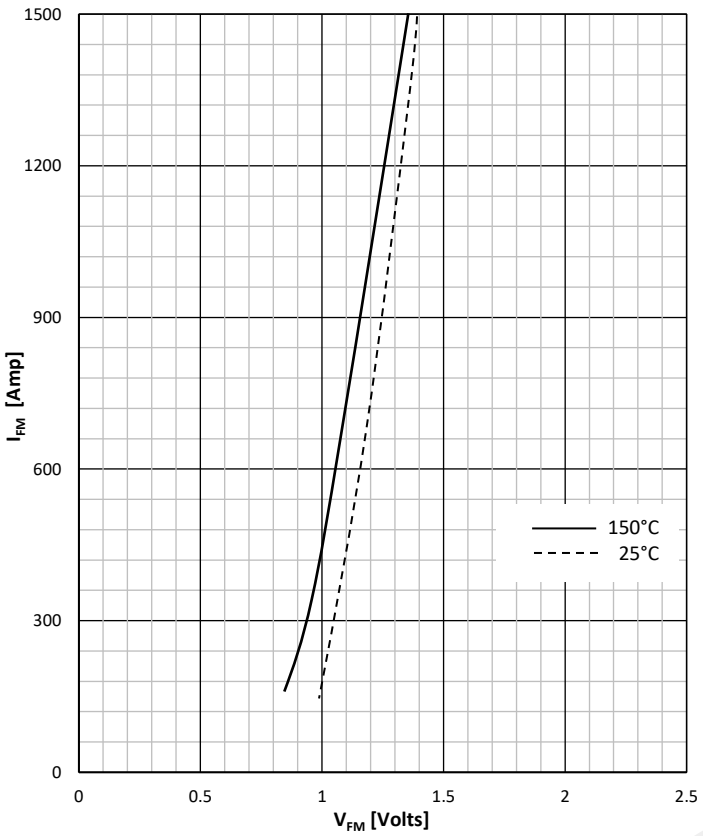
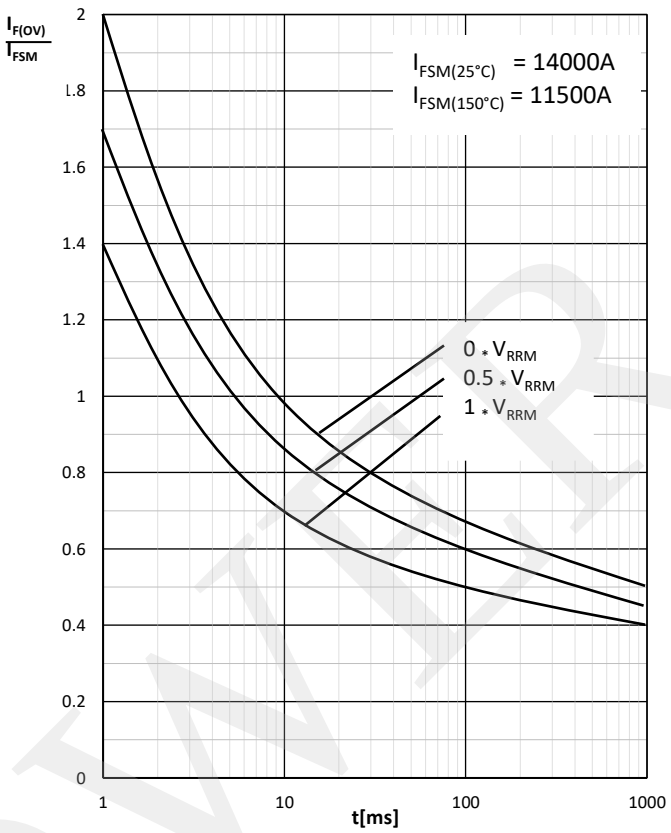
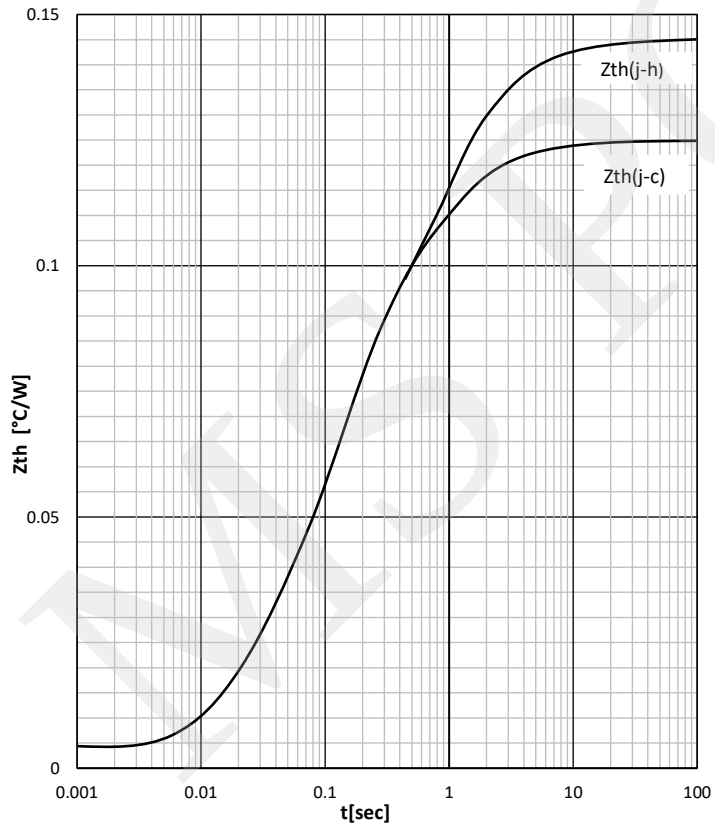
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP



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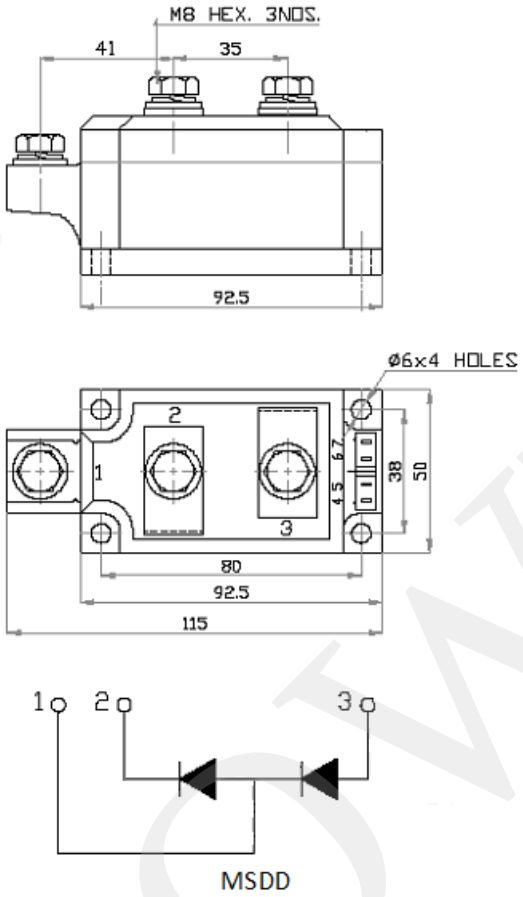
Outline



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