MS DD480

Key Parameters

V_{RRM} = 4500V
$I_{F(AV)}$ = 480A
I_{FSM} = 10500A
$V_{F(TO)}$ = 0.89V
r_F = 0.815mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through aluminium oxide ceramic isolated metal base plate
- 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	480	K	45
Fixed code	DD- Diode- Diode Module	Current Code	Technology K = Pressure Contact Technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS DD480K45 : 4500V V_{RRM}, Diode-Diode Module				

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MS DD480

Symbol	Characteristic	Conditions	Tj [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		150	4000 - 4500	V
V_{RSM}	Non-repetitive peak reverse voltage		150	4100 - 4600	V
I_{RRM}	Repetitive peak reverse current	V= V_{RRM}	150	75	mA
CONDUCTING					
$I_{F(AV)}$	Mean forward current	180° sin ,50 Hz, T_c=87°C 180° sin ,50 Hz, T_c=100°C		480 410	A
I_{FRMS}	RMS current	T_c=87°C		754	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	10500	A
			150	9000	A
I^2t	I^2t	Sine wave, 10 ms Without reverse voltage	25	551 x 10^3	A^2s
			150	405 x 10^3	A^2s
V_F	Forward voltage	On-state current = 1600A	150	2.194	V
$V_{F(TO)}$	Threshold voltage		150	0.89	V
r_F	Forward slope resistance		150	0.815	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, per arm per module		0.070 0.035	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, per arm per module		0.02 0.01	°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.)			1480	gm
	File No.			E505556	

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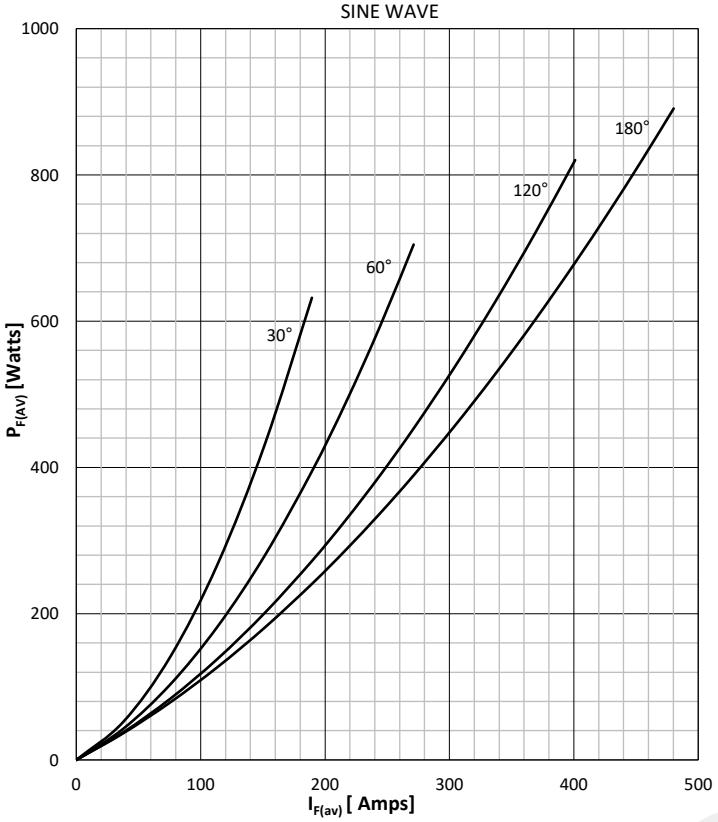
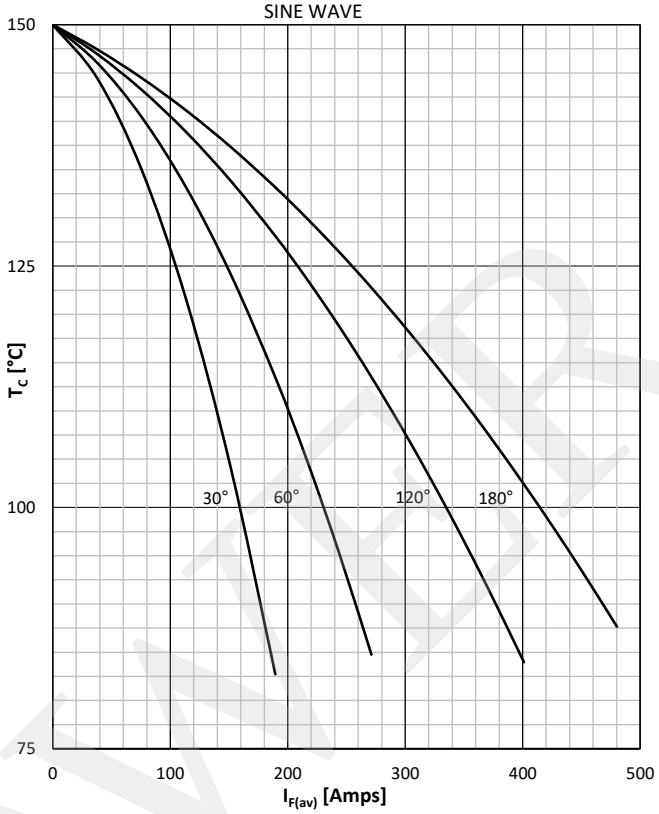
DISSIPATION CHARACTERISTICS

SINE WAVE



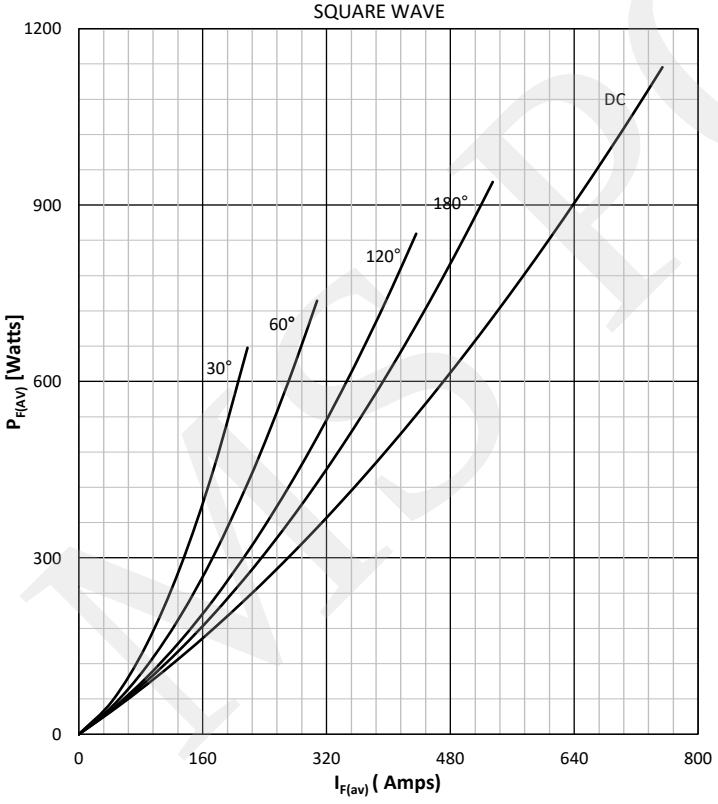
FORWARD CURRENT DERATING CURVE

SINE WAVE



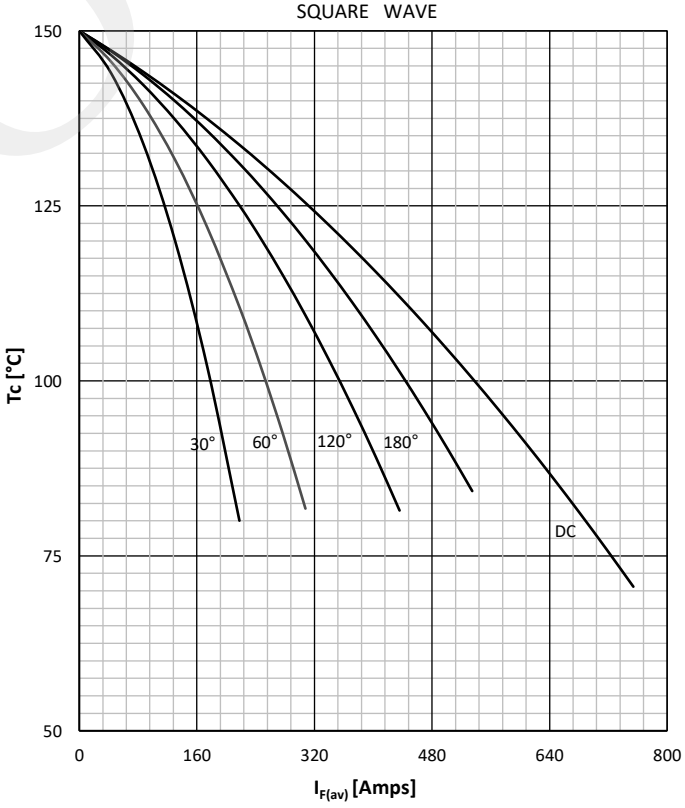
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



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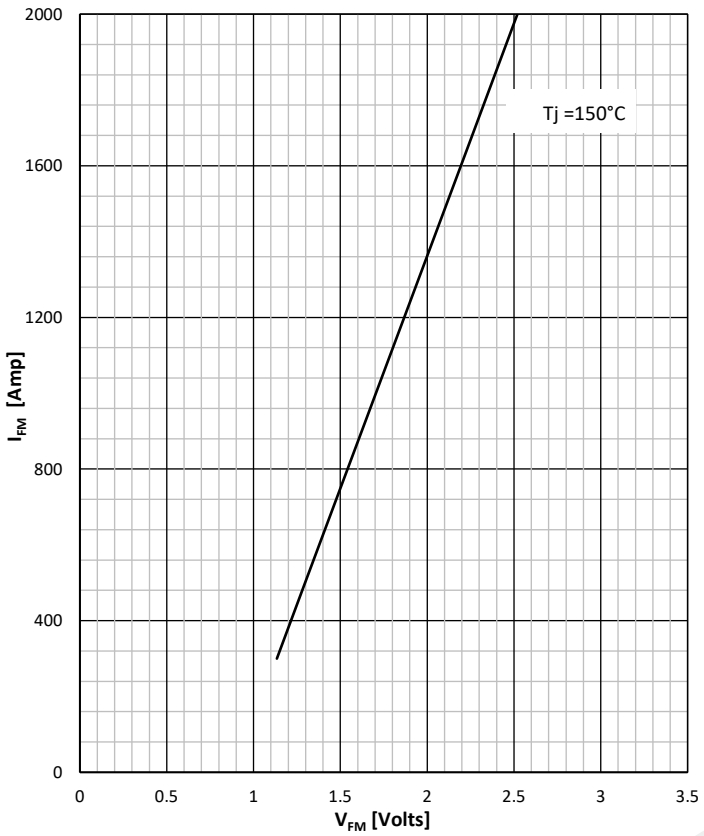
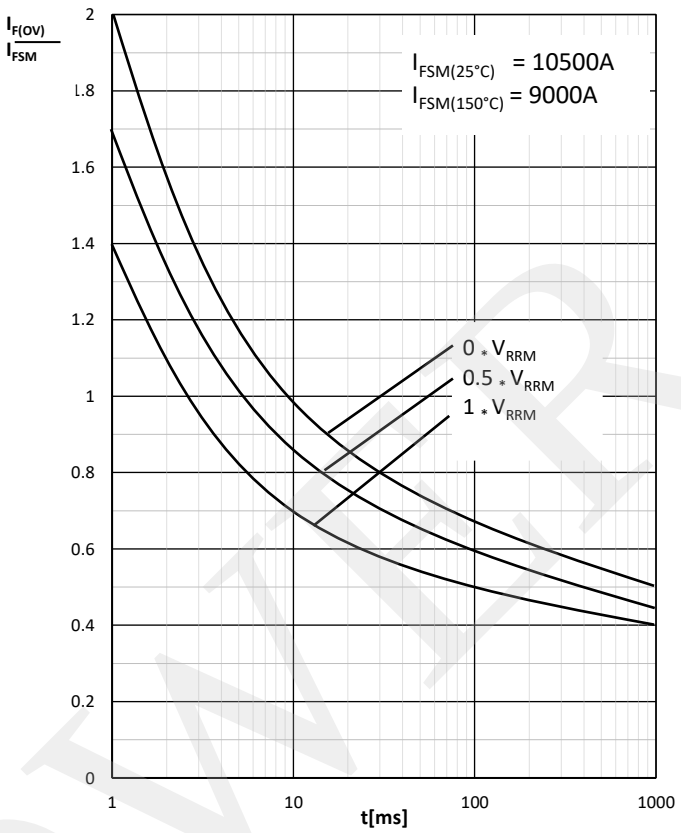
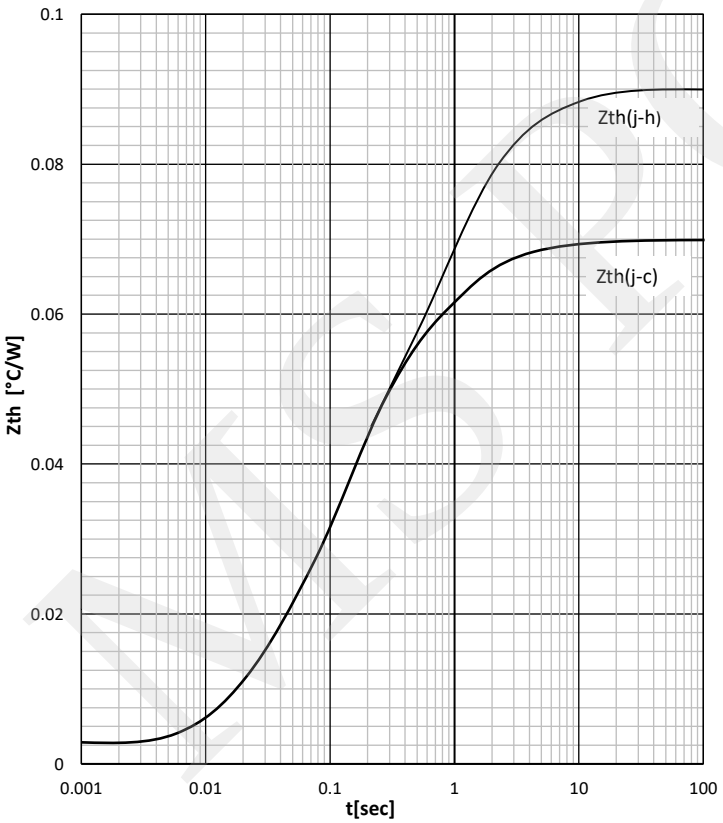
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP



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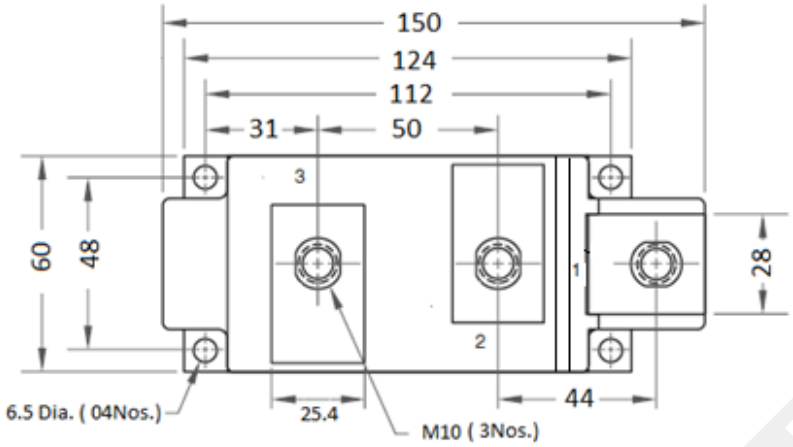
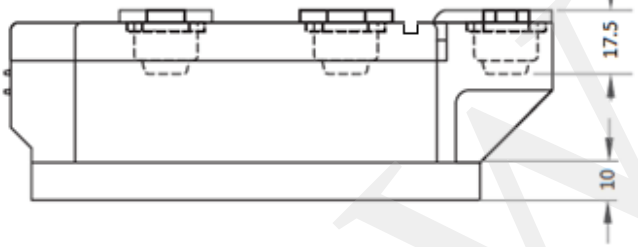
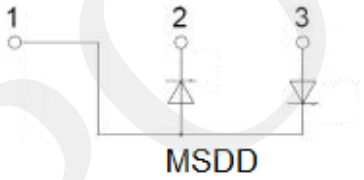
Outline





Note : All dimensions are in mm.
Tolerance : ± 0.5mm



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