



Key Parameters

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

Features

- Full blocking capability over wide temperature range
- Heat transfer through aluminium nitride 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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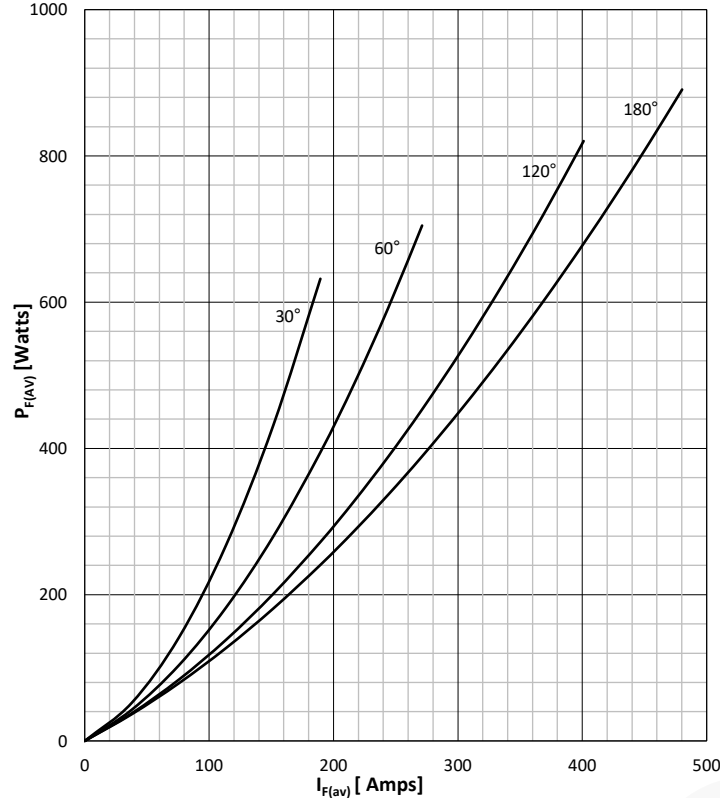
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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	4000 - 4500	V
V _{RSM}	Non-repetitive peak reverse voltage		150	4100 - 4600	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	150	75	mA
CONDUCTING					
I _{F (AV)}	Mean forward current	180° sin ,50 Hz, T _c =87°C		480	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 ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	551 x 10 ³	A ² s
			150	405 x 10 ³	A ² s
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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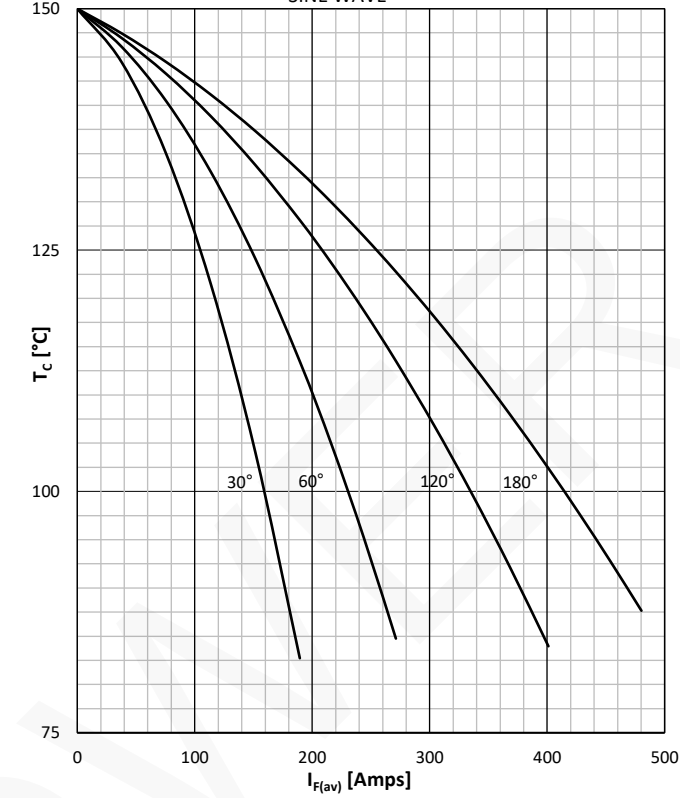
DISSIPATION CHARACTERISTICS

SINE WAVE



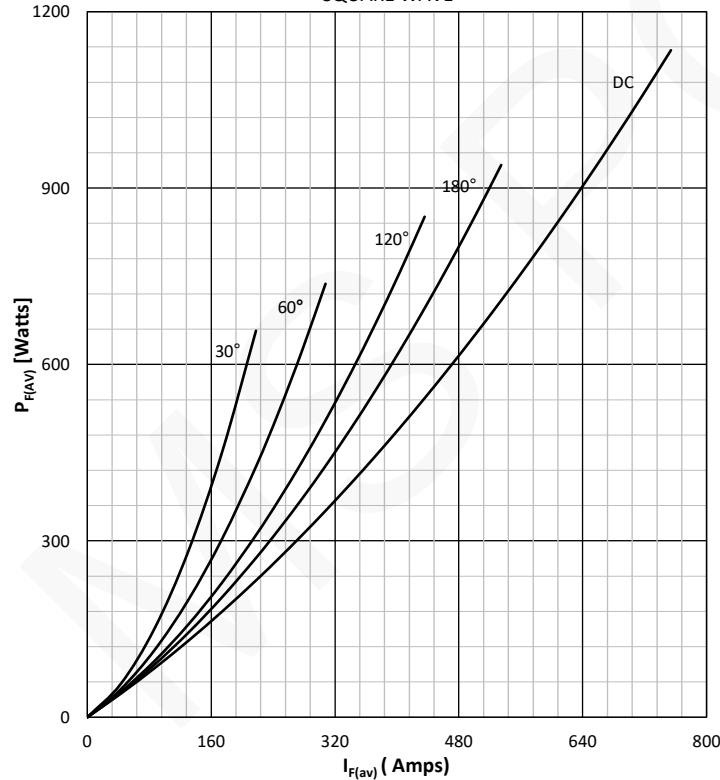
FORWARD CURRENT DERATING CURVE

SINE WAVE



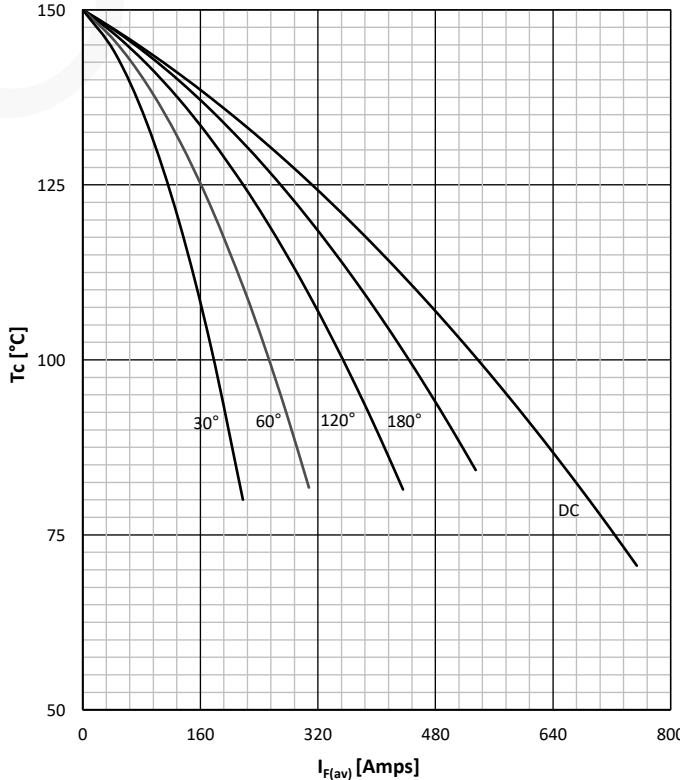
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



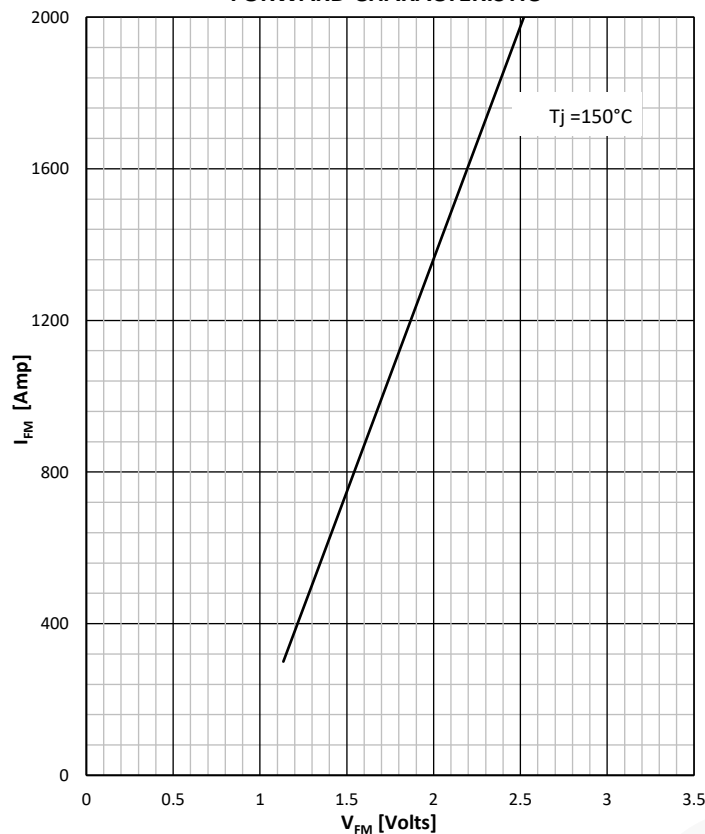
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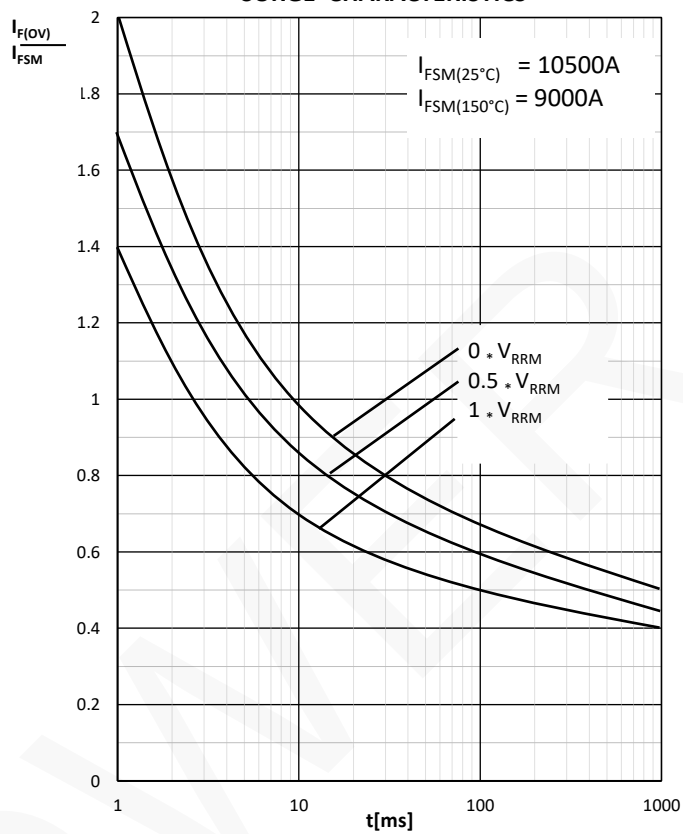
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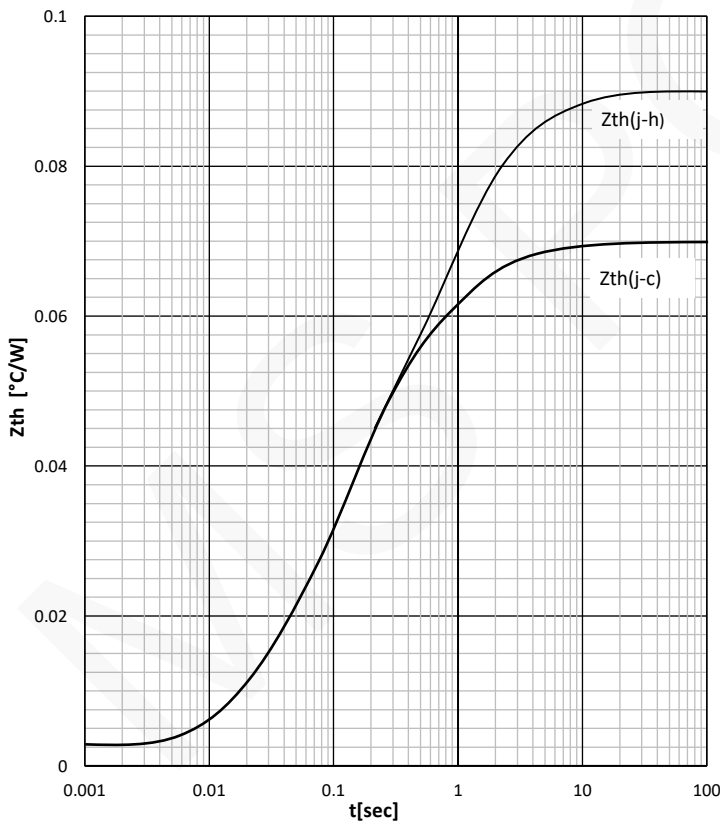
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

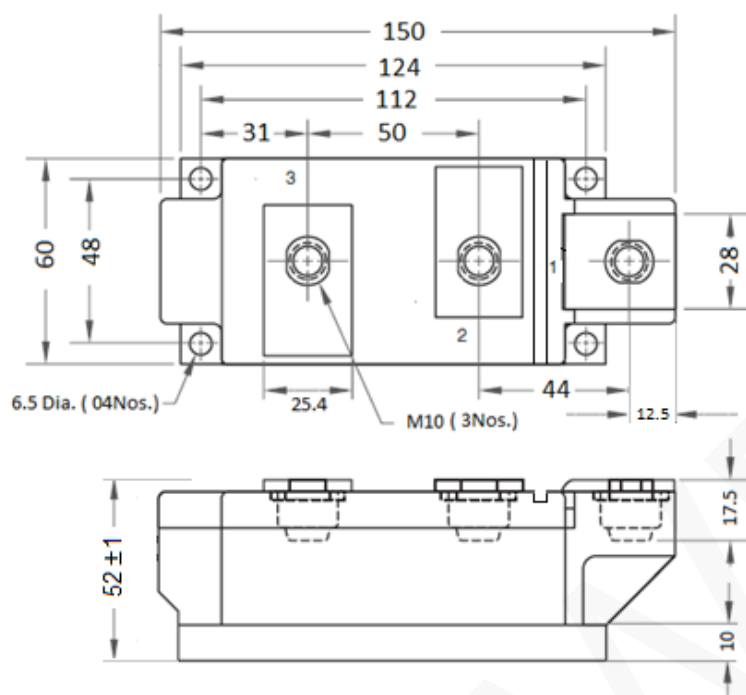


TRANSIENT THERMAL IMPEDANCE, PER CHIP

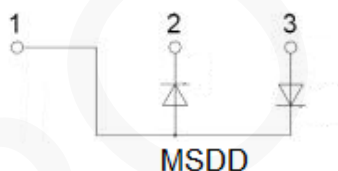


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Outline



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



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