



Key Parameters

V_{RRM}	= 1800V
$I_{F(AV)}$	= 500A
I_{FSM}	= 15000A
$V_{F(TO)}$	= 0.84V
r_F	= 0.24mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through aluminium nitride 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

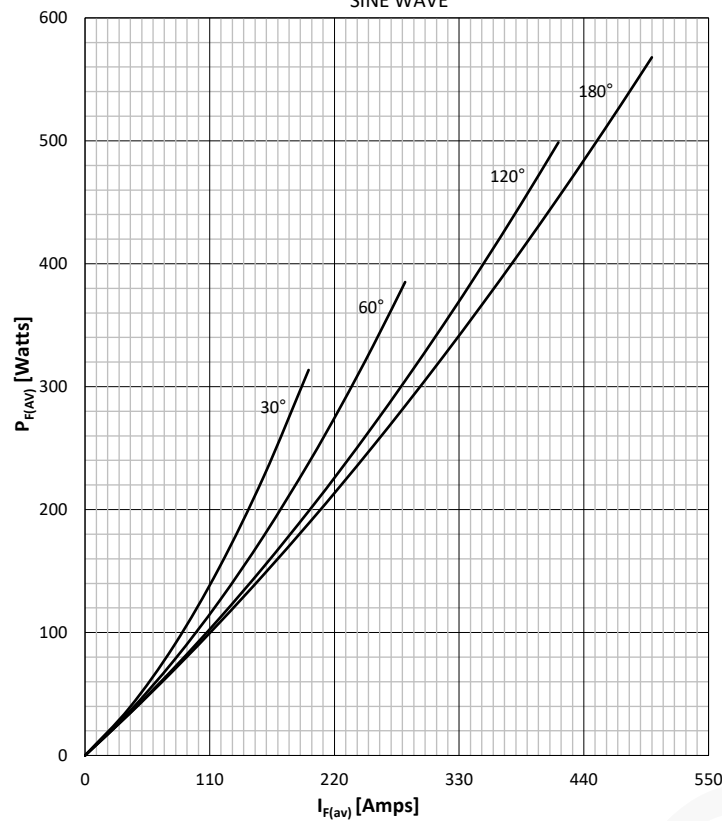
MS	DD	500	K	18
Fixed code	DD- Diode- Diode Module	Current Code	Technology K = Pressure Contact Technology	Voltage Code Code X 100 = V_{RRM}
Order Code MS DD500K18 : 1800V V_{RRM} , Diode-Diode Module				

Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 2

Symbol	Characteristic	Conditions	T _j [°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	40	mA
CONDUCTING					
I _{F (AV)}	Mean forward current	180° sin ,50 Hz, T _c =100°C		500	A
I _{FRMS}	RMS current	T _c =100°C		785	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	15000	A
			150	14000	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	1125 x 10 ³	A ² s
			150	980 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1500A	25	1.35	V
V _{F(TO)}	Threshold voltage		150	0.84	V
r _F	Forward slope resistance		150	0.24	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, per arm per module		0.088 0.044	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, per arm per module		0.030 0.015	°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.)			1450	gm
	File No.			E505556	
Prepared by : ABA Date of Publication : 25.03.2015 Approved by : RBS Revision : 2					

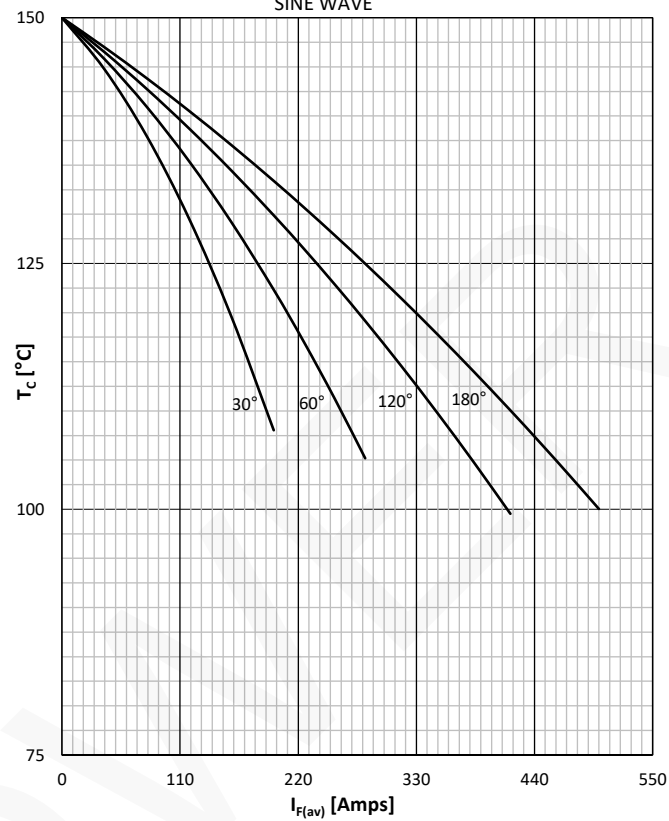
DISSIPATION CHARACTERISTICS

SINE WAVE



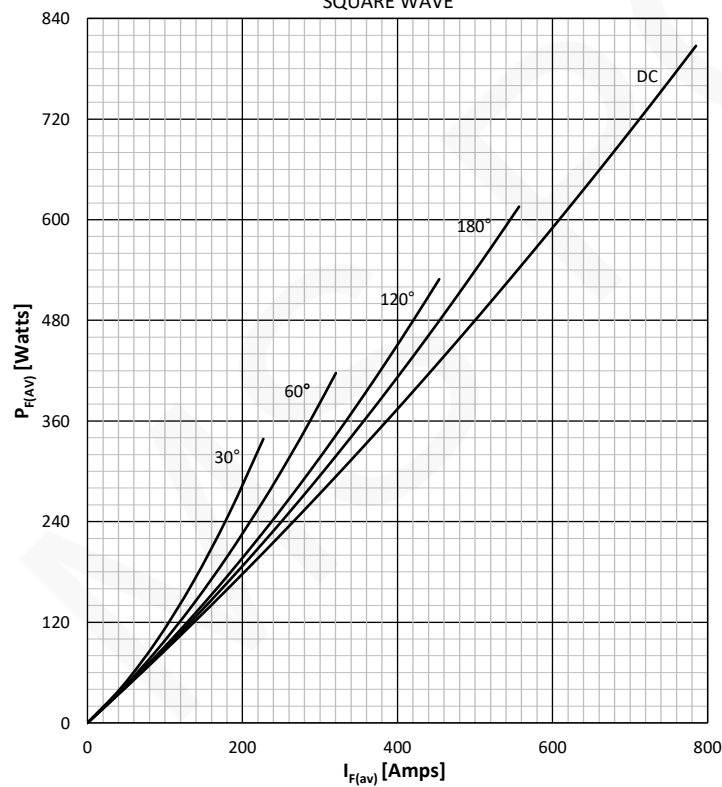
FORWARD CURRENT DERATING CURVE

SINE WAVE



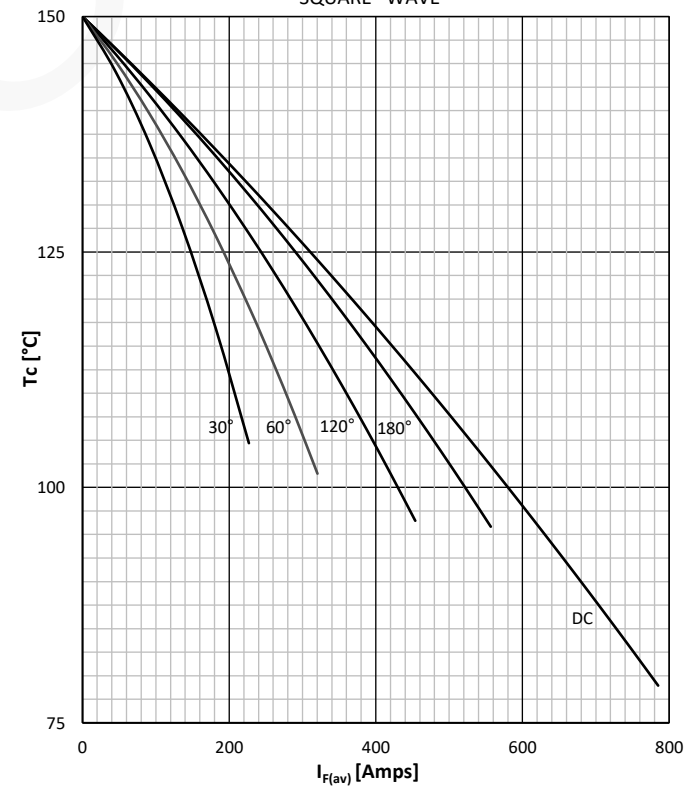
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



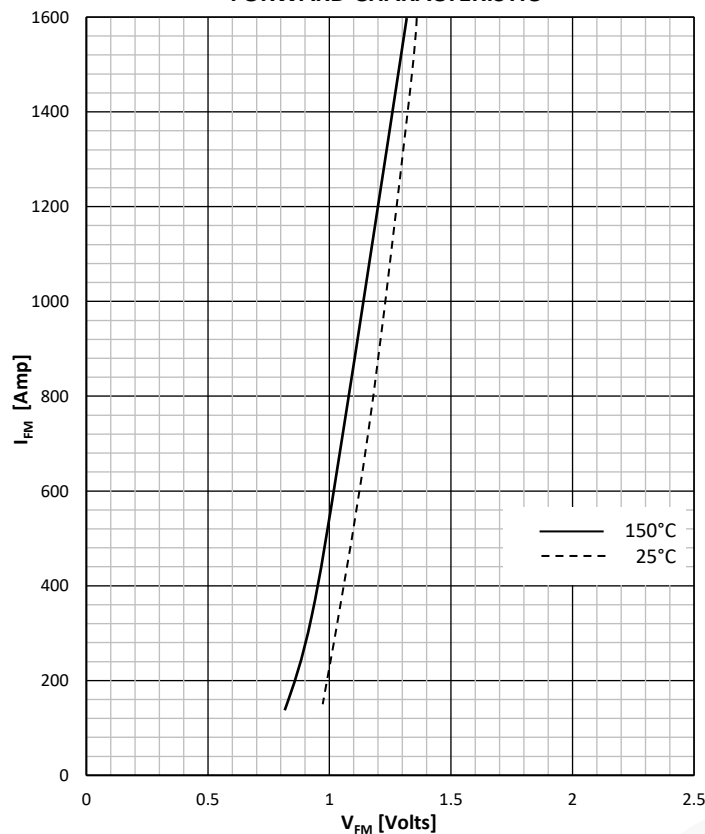
Prepared by : ABA

Date of Publication : 25.03.2015

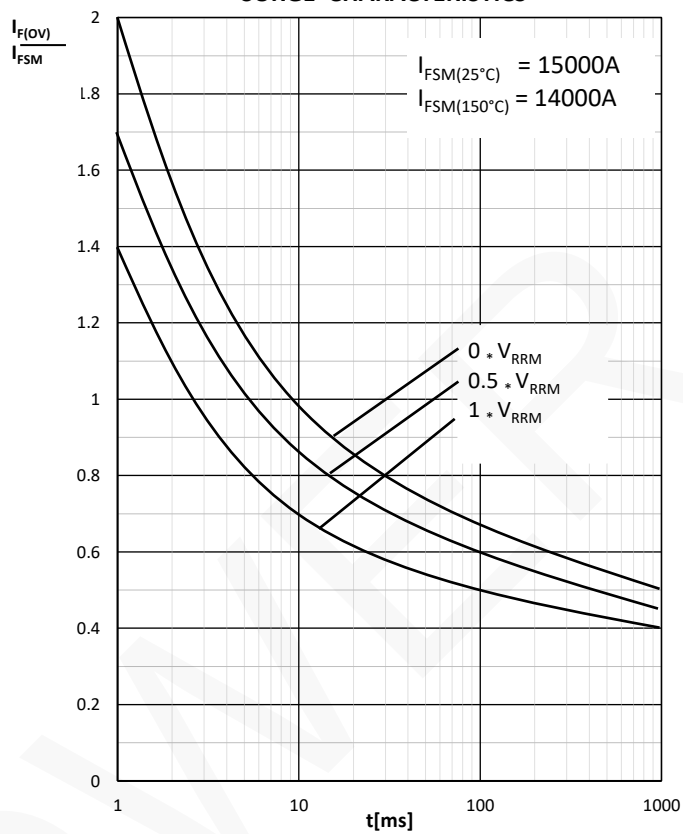
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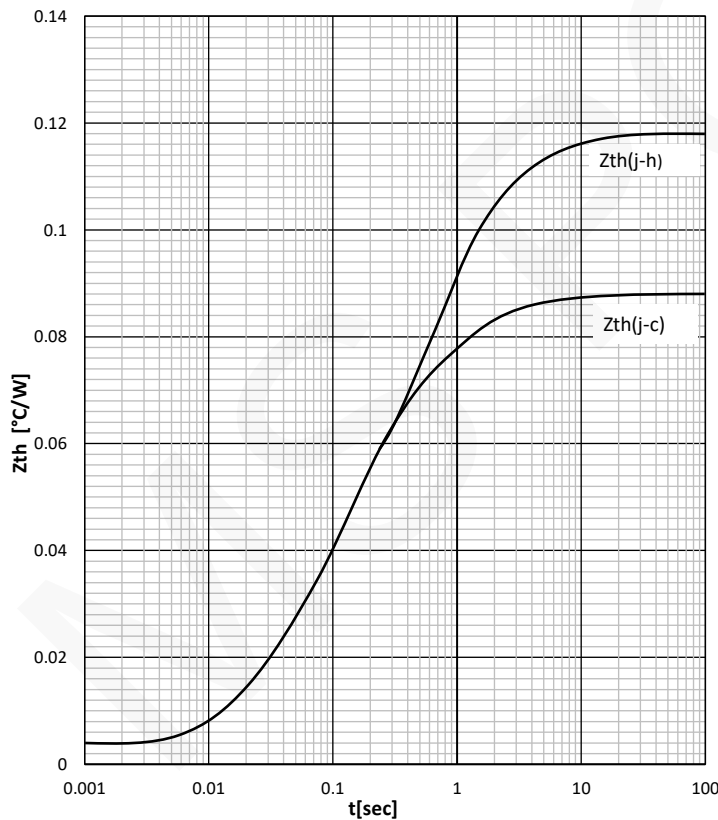
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

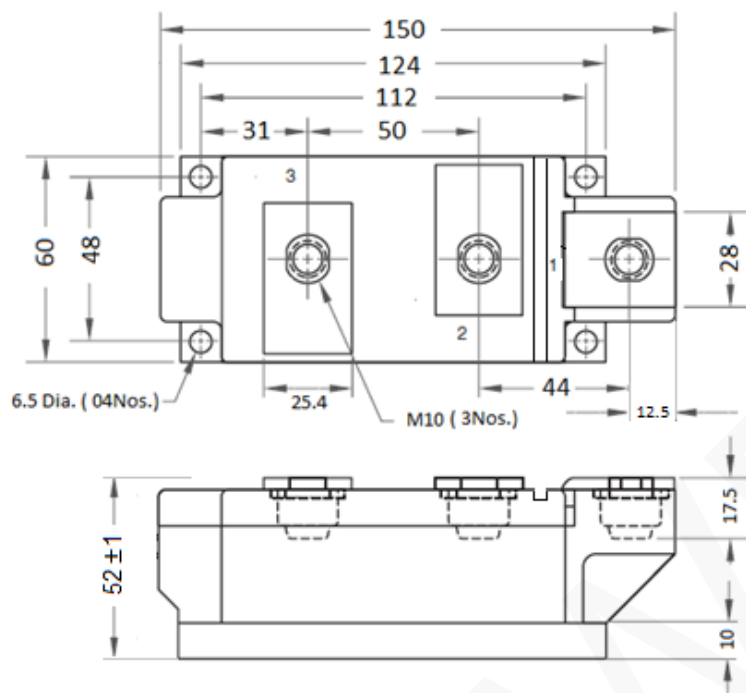


TRANSIENT THERMAL IMPEDANCE, PER CHIP

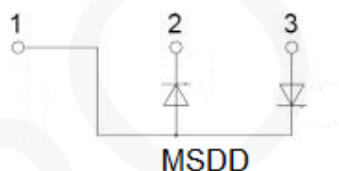


Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 2

Outline



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



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