

Key Parameters

V_{RRM}	= 2700V
$I_{F(AV)}$	= 600A
I_{FSM}	= 12000A
$V_{F(TO)}$	= 0.88V
r_F	= 0.40mΩ

Features

- Full blocking capability over wide temperature range
- Pressure contacts technology for high reliability

Applications

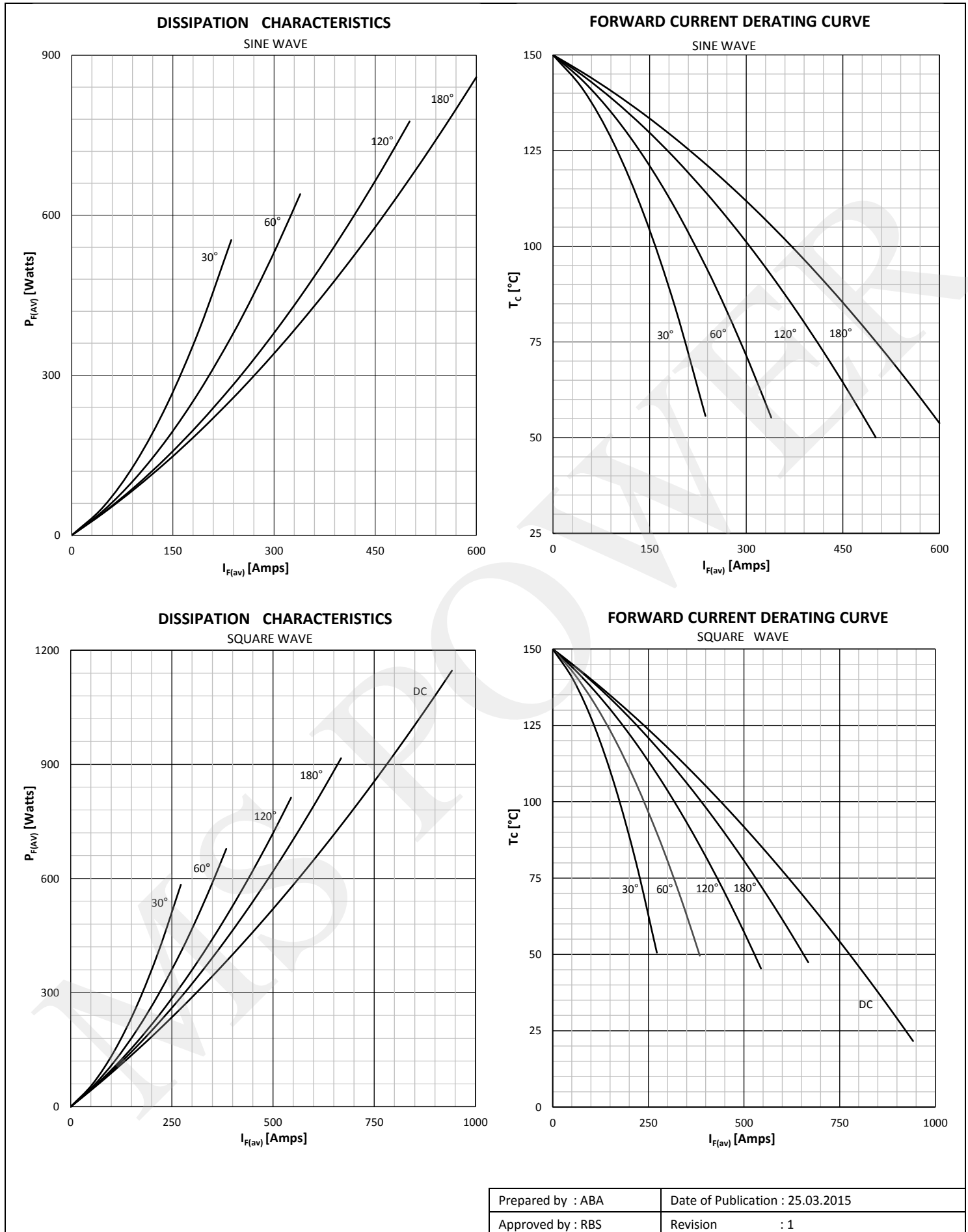
- Power Supplies
- Uncontrolled Rectifiers
- Welding
- Induction Heating / Melting
- Battery Chargers

Ordering Information

MS D	607	N	XX	U	K
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = V_{RRM}	Stud Threads U = 3/4" 16UNF-2A	Technology K = Pressure Contact Technology
Order Code MS D607N27UK : 2700V V_{RRM} , UNF Stud, Diode with stud Cathode					

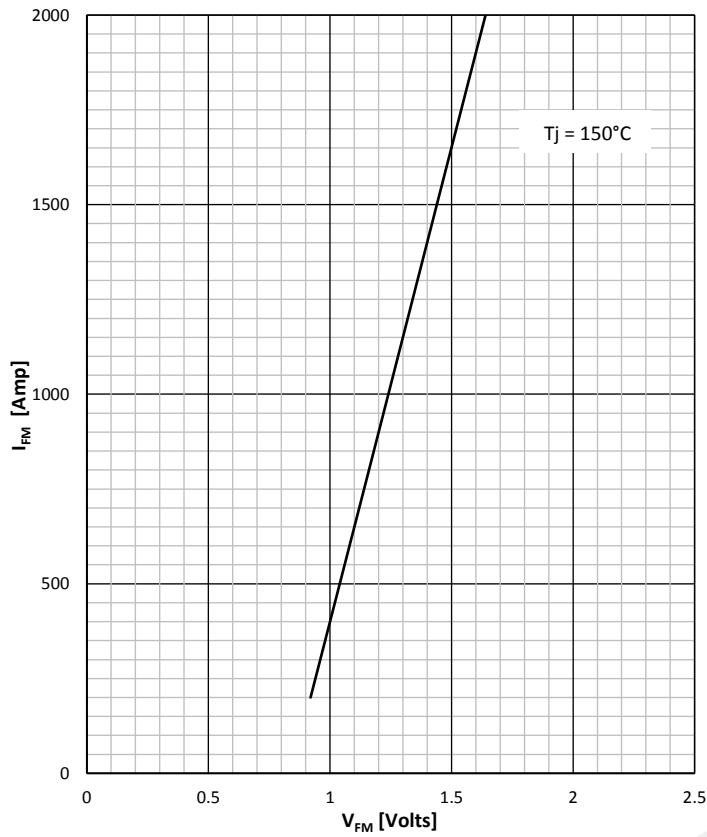
Prepared by : ABA	Date of Publication : 25.03.2015
Approved by : RBS	Revision : 1

Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	2700	V
V _{RSM}	Non-repetitive peak reverse voltage		150	2800	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	25	0.5	mA
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 =54°C 180° sin ,50 Hz, T _c =100°C		600 375	A
I _{FRMS}	RMS current	T _c =54°C		942	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	12000	A
			150	10500	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	720 x 10 ³	A ² s
			150	551 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1500A	150	1.44	V
V _{F(TO)}	Threshold voltage		150	0.88	V
r _F	Forward slope resistance		150	0.40	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case		0.10	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink		0.04	°C/W
T _j	Max. junction temperature			150	°C
T _{stg}	Storage temperature			-40 200	°C
M	Mounting torque			2.7 -- 3.0	KgM
W	Weight (Approx.)			430 ± 5	gm
Note : Diode withstands acceleration of 5500g in rotating application					
			Prepared by : ABA	Date of Publication : 25.03.2015	
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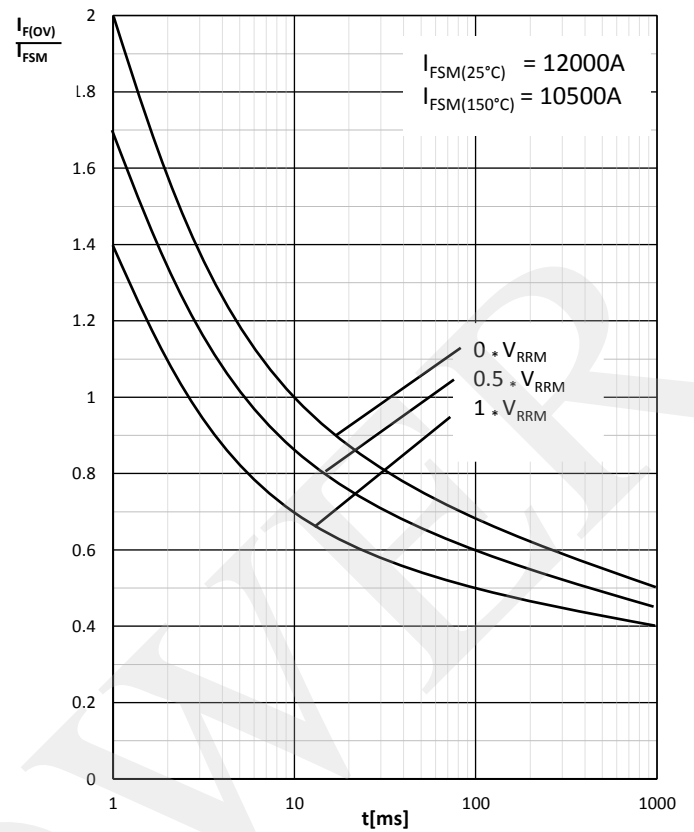


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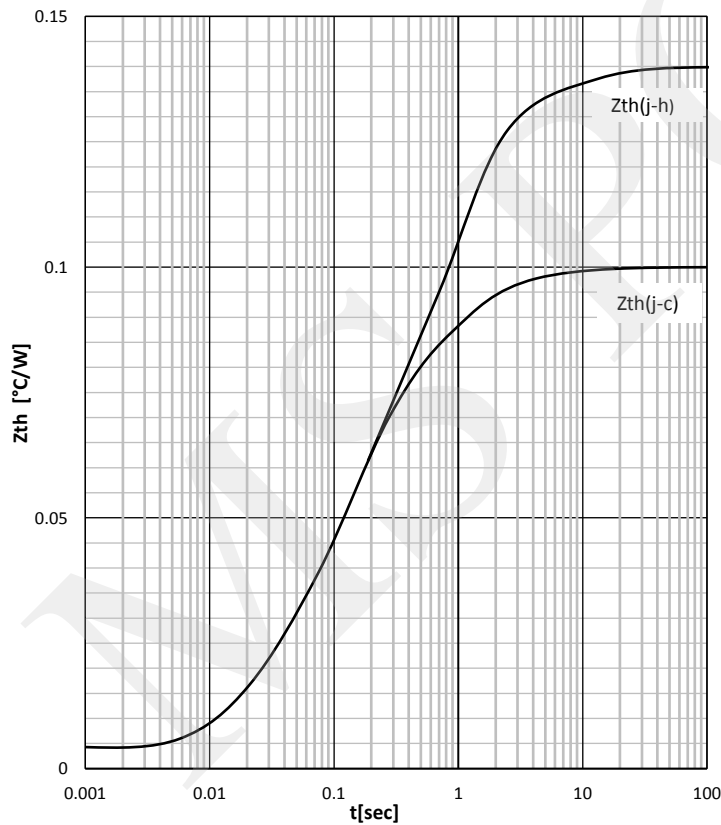
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



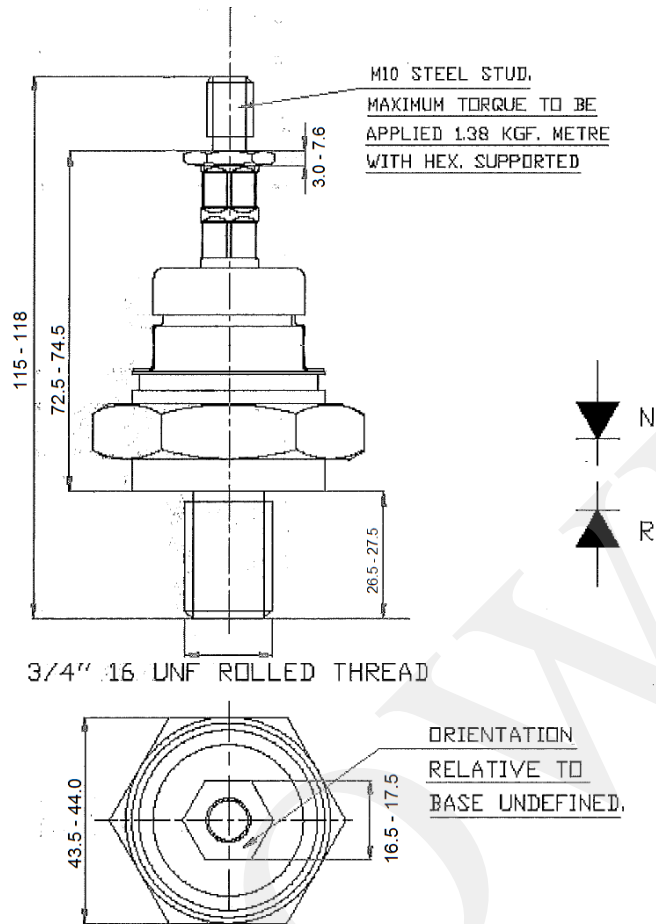
Prepared by : ABA

Date of Publication : 25.03.2015

Approved by : RBS

Revision : 1

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