

Key Parameters

V_{RRM}	= 2400V
$I_{F(AV)}$	= 300A
I_{FSM}	= 7500A
$V_{F(TO)}$	= 0.90V
r_F	= 0.59mΩ

Features

- Full blocking capability over wide temperature range
- Hermetic metal case with glass insulator
- Threaded Stud

Applications

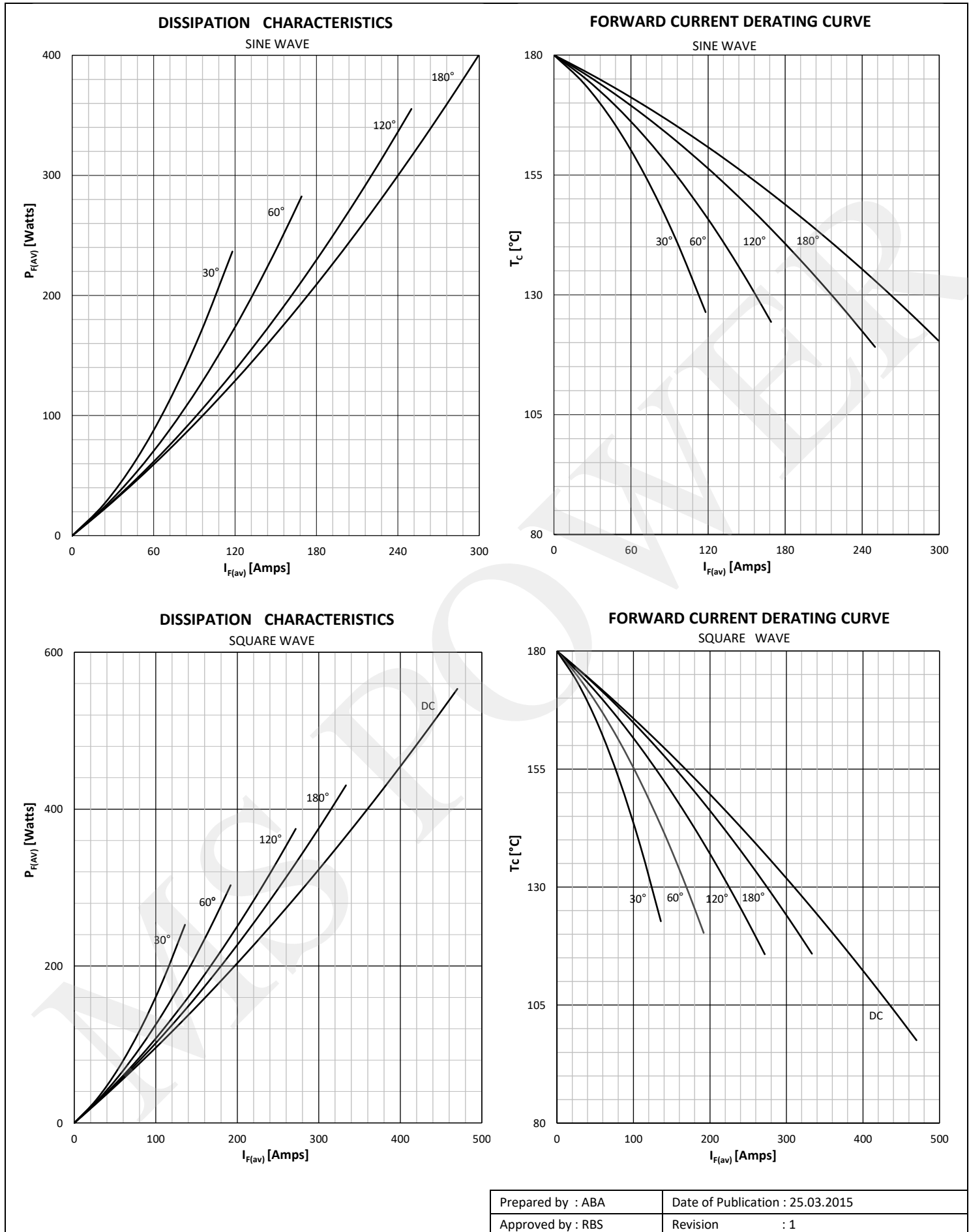
- Power Supplies
- Uncontrolled Rectifiers
- Battery Chargers
- Rotating applications

Ordering Information

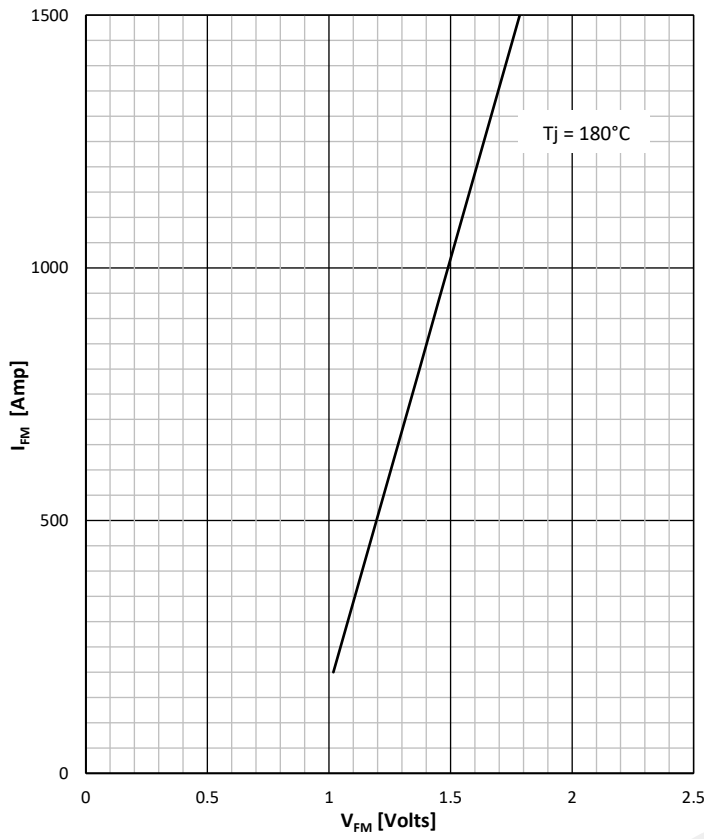
MS D	301	N	XX	U	B
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = V_{RRM}	Stud Threads U = 3/4" -16UNF-2A	Technology B = Solder Bond Technology
Order Code MS D301N24UB : 2400V V_{RRM} , UNF Stud, Diode with stud Cathode					

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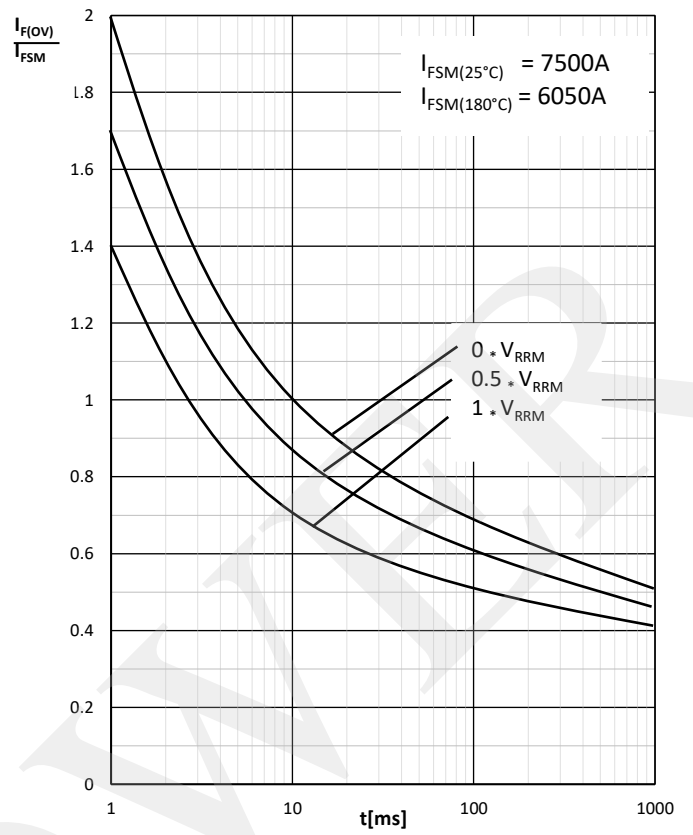
Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		180	2000 - 2400	V
V _{RSM}	Non-repetitive peak reverse voltage		180	2100 - 2500	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	25	0.5	mA
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	180	20	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, T _c =120°C		300	A
I _{FRMS}	RMS current			470	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	7500	A
			180	6050	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	281 x 10 ³	A ² s
			180	183 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 942A	180	1.46	V
V _{F(TO)}	Threshold voltage		180	0.90	V
r _F	Forward slope resistance		180	0.59	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, DC	Junction to case		0.14	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink		0.08	°C/W
T _j	Max. junction temperature			180	°C
T _{stg}	Storage temperature			-40 180	°C
M	Mounting torque			2.5 - 2.77	KgM
W	Weight (Approx.)			160 ±5	gm
Note : Diode withstands acceleration of 3500g in rotating application					
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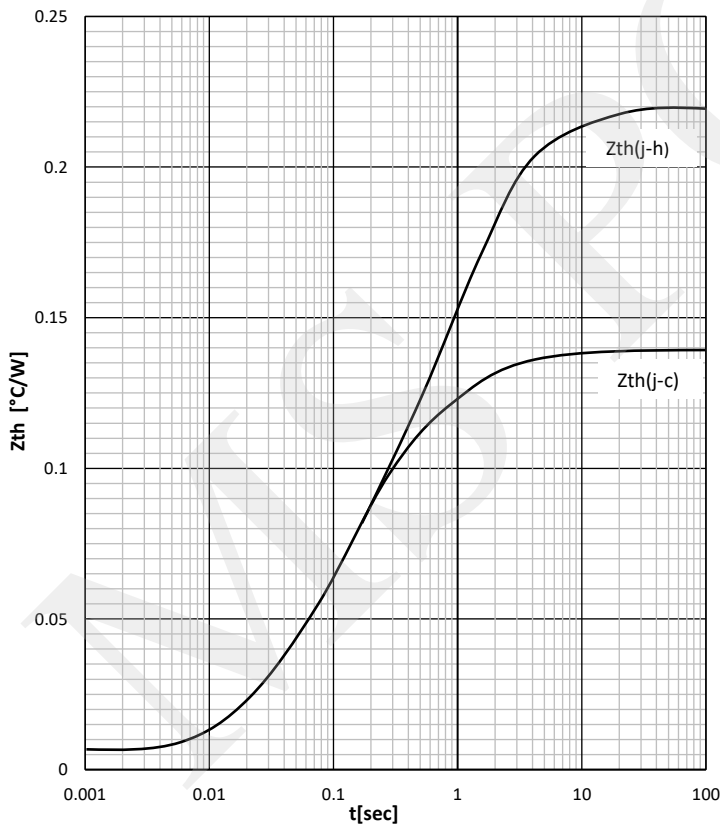
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



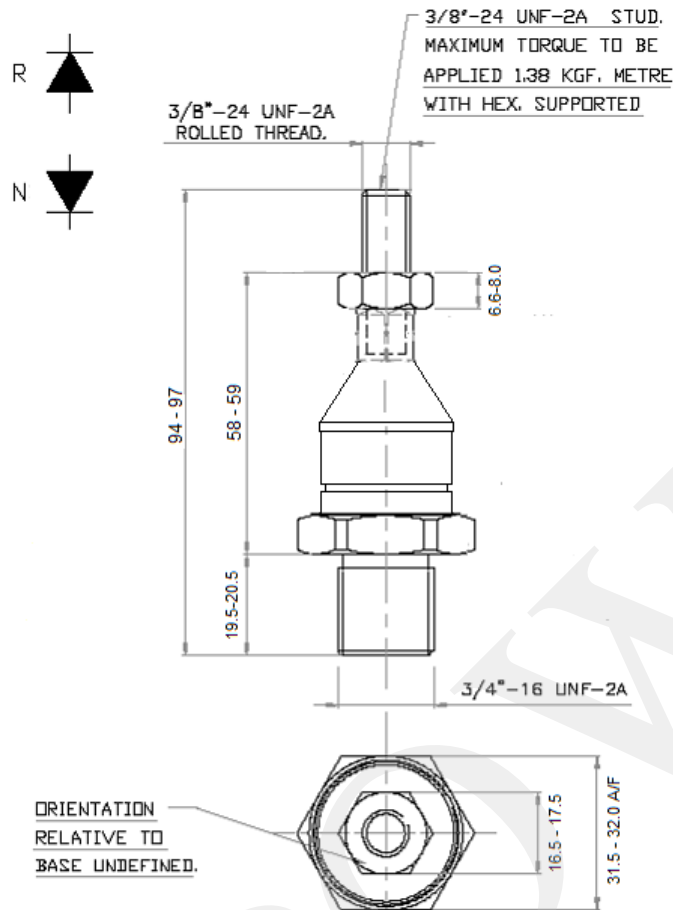
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