

Key Parameters

V_{RRM}	= 1600V
$I_{F(AV)}$	= 600A
I_{FSM}	= 14000A
$V_{F(TO)}$	= 0.82V
r_F	= 0.30mΩ

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

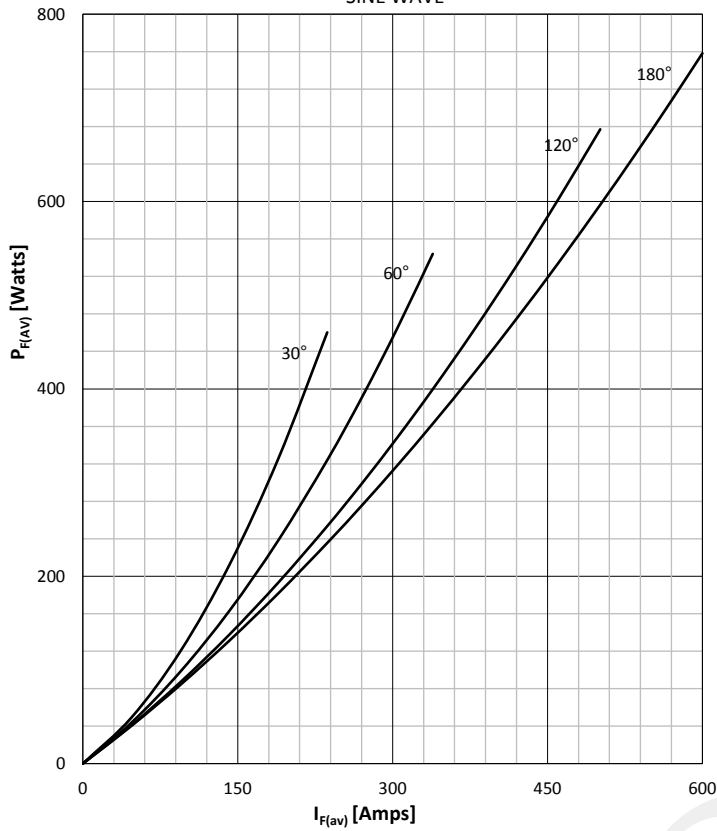
MS D	606	N	XX	U	K
Rectifier Diode	Current code	Polarity R= Stud Anode N= Stud Cathode	Voltage Code Code X 100 = V_{RRM}	Stud Threads U = 3/4" 16UNF-2A	Technology K = Pressure Contact Technology
Order Code MS D606N16UK : 1600V V_{RRM} , UNF Stud, Diode with stud Cathode					

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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		180	1600	V
V _{RSM}	Non-repetitive peak reverse voltage		180	1700	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	25	0.5	mA
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	180	40	mA
CONDUCTING					
I _{F(AV)}	Mean forward current	180° sin ,50 Hz, T _c =100°C		600	A
I _{FRMS}	RMS current			942	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	14000	A
			180	13000	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	980 x 10 ³	A ² s
			180	845 x 10 ³	A ² s
V _F	Forward voltage	On-state current = 1800A	180	1.44	V
V _{F(TO)}	Threshold voltage		180	0.82	V
r _F	Forward slope resistance		180	0.30	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case		0.093	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink		0.04	°C/W
T _j	Max. junction temperature			180	°C
T _{stg}	Storage temperature			-40 180	°C
M	Mounting torque			2.7 -- 3.0	KgM
W	Weight (Approx.)			430 ± 5	gm
Note : Diode withstands acceleration of 5500g in rotating application					
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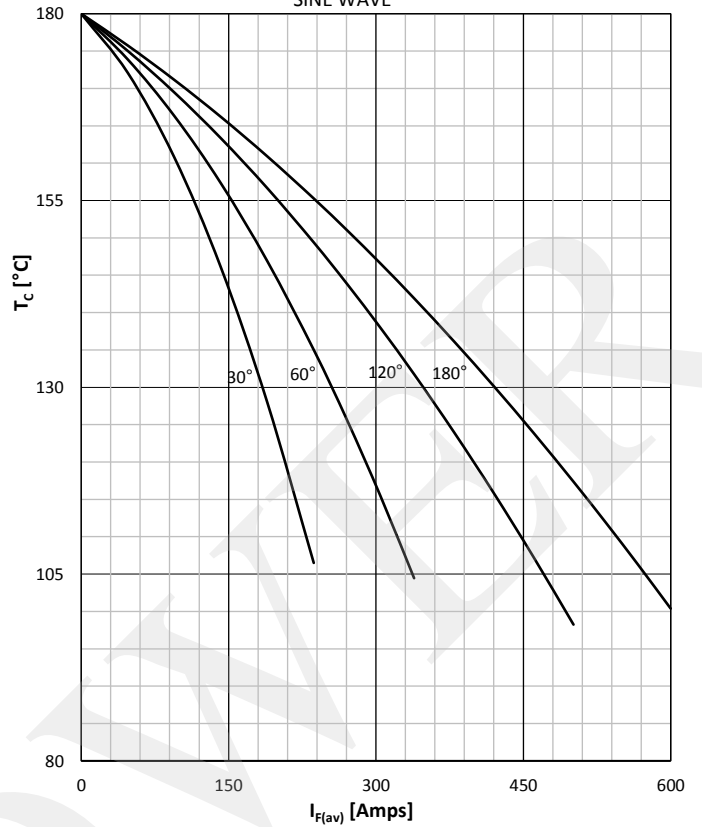
DISSIPATION CHARACTERISTICS

SINE WAVE



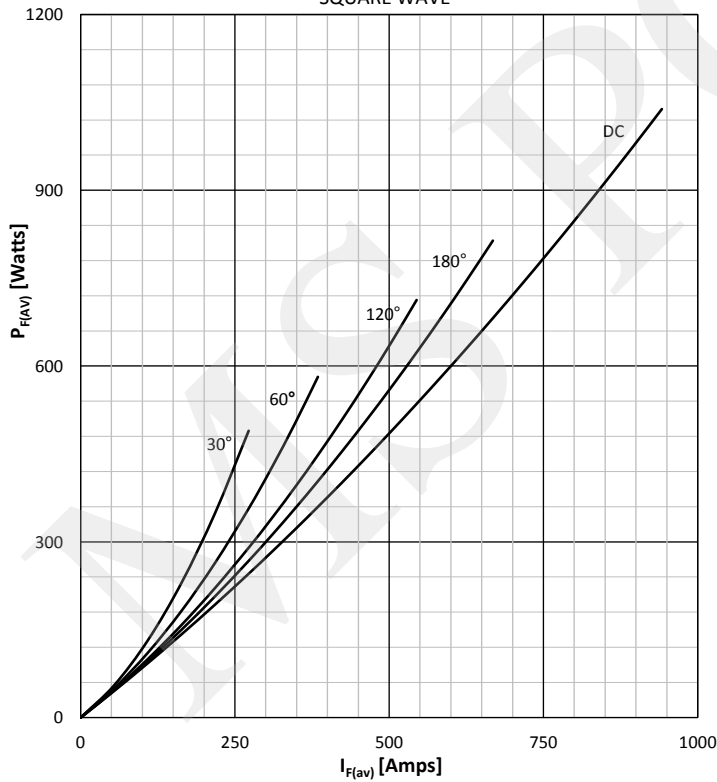
FORWARD CURRENT DERATING CURVE

SINE WAVE



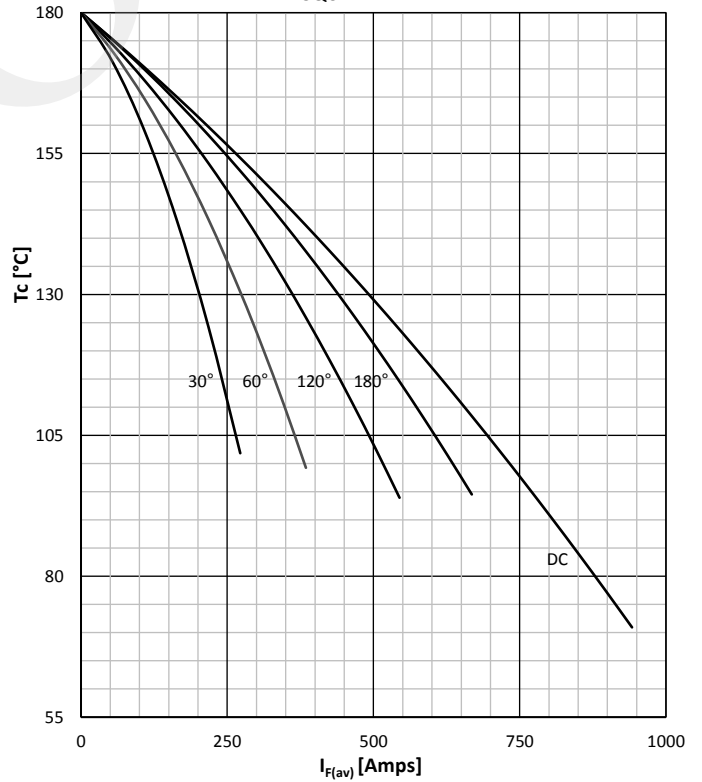
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE



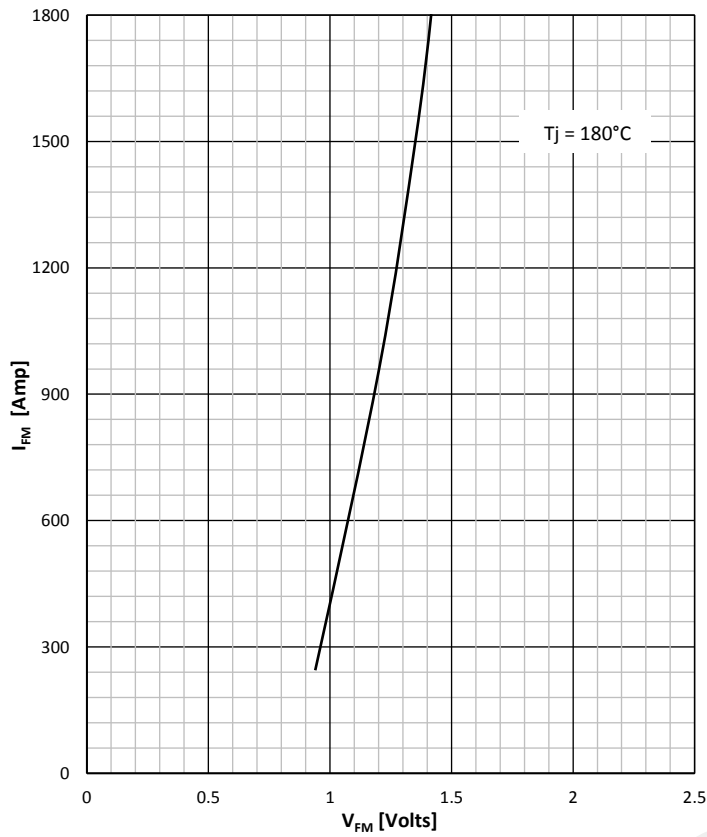
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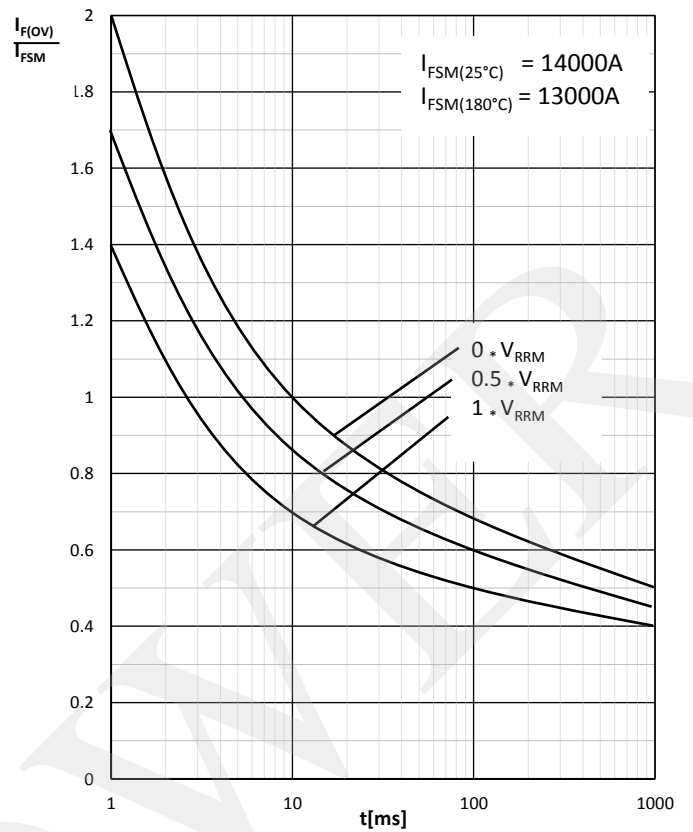
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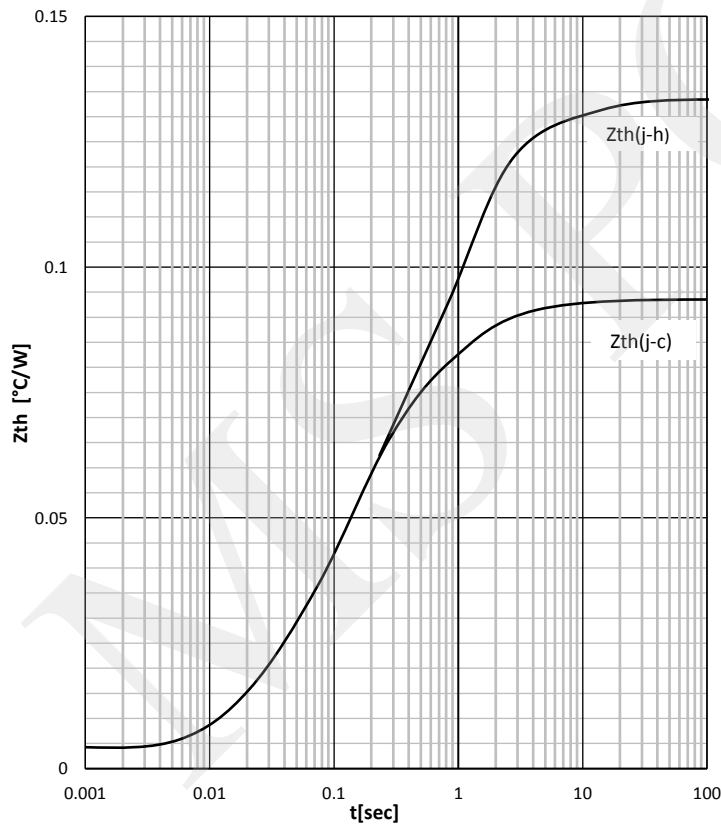
FORWARD CHARACTERISTIC



SURGE CHARACTERISTICS

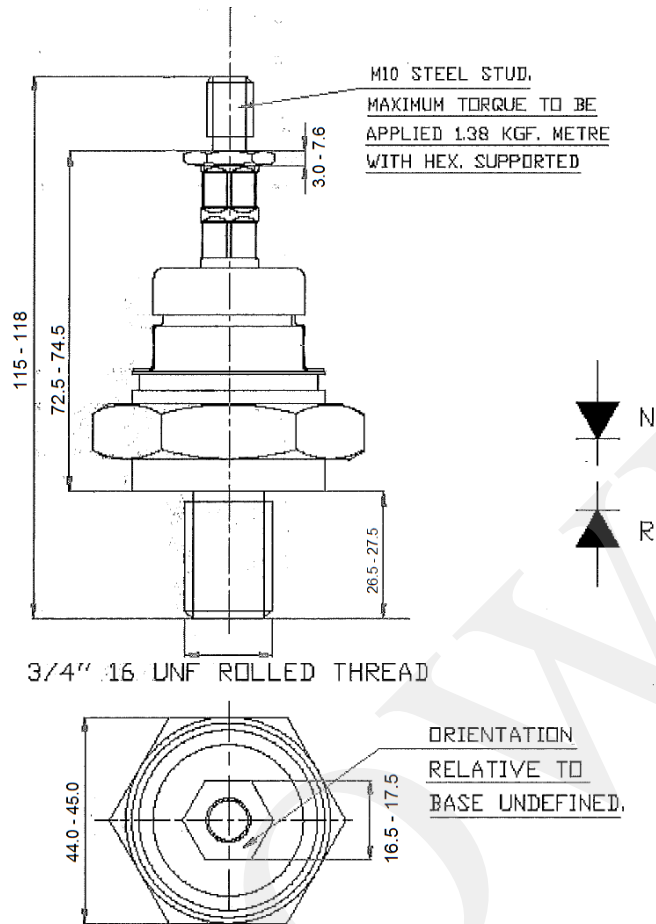


TRANSIENT THERMAL IMPEDANCE



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