



Key Parameters

V_{RRM}	= 1600V
$I_{D(AV)}$	= 80A
I_{FSM}	= 1000A
$V_{F(TO)}$	= 0.85V
r_F	= 6.0mΩ

Features

- Full blocking capability over wide temperature range
- Heat transfer through isolated metal base plate
- Hard soldered joints for high reliability

Applications

- Power Supplies
- Uncontrolled Rectifiers
- Field supply for DC motors

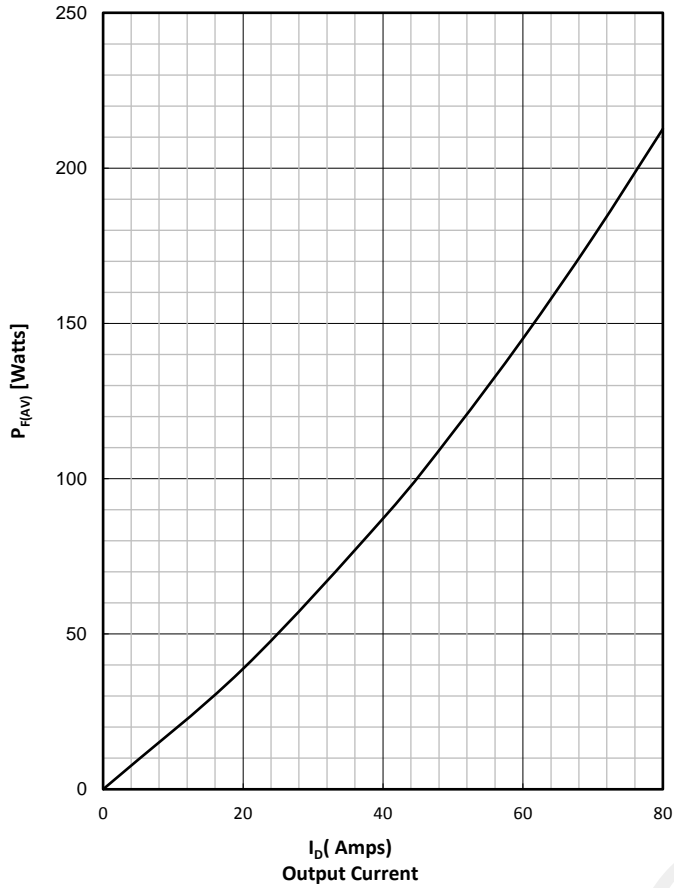
Ordering Information

MDS	80	- X X
Three Phase Diode bridge rectifier	Current Code	Voltage Code Code X 100 = V_{RRM}
Order Code MDS80-16 : 1600V V_{RRM} , Three Phase Diode bridge rectifier		

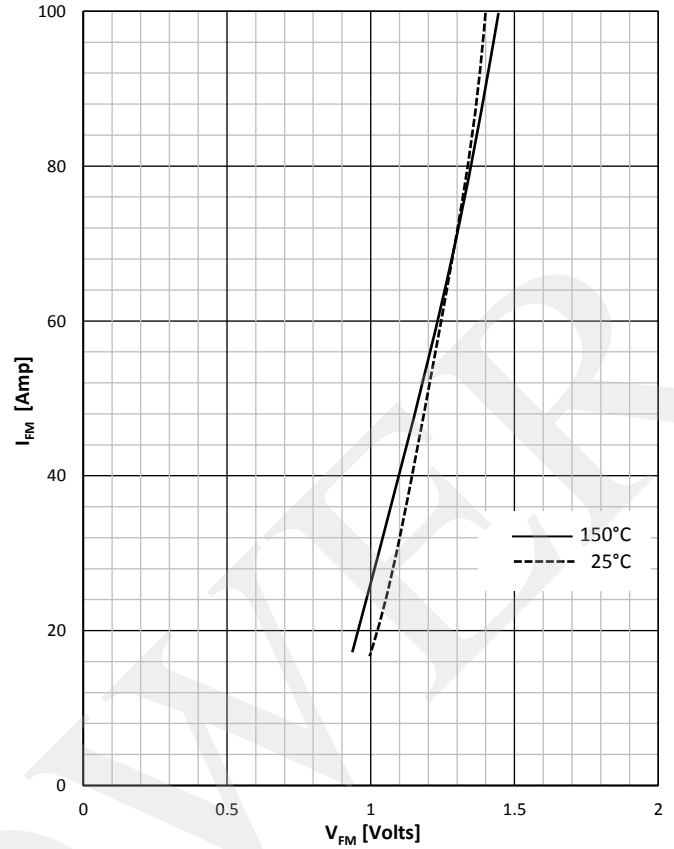
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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	800 - 1600	V
V _{RSM}	Non-repetitive peak reverse voltage		150	900 - 1700	V
I _{RRM}	Repetitive peak reverse current	V = V _{RRM}	150	5	mA
CONDUCTING					
I _{D(AV)}	DC output current	T _c =100°C		80	A
I _{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	1000	A
			150	900	A
I ² t	I ² t	Sine wave, 10 ms Without reverse voltage	25	5000	A ² s
			150	4050	A ² s
V _F	Forward voltage	On-state current = 100A	25	1.40	V
V _{F(TO)}	Threshold voltage		150	0.85	V
r _F	Forward slope resistance		150	6.0	mΩ
MOUNTING					
R _{th(j-c)}	Thermal impedance, sin 180°	Junction to case, per arm per bridge		0.86 0.14	°C/W
R _{th(c-h)}	Thermal impedance	Case to heatsink, per bridge		0.05	°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		2.5	KV
M1	Mounting torque			5 ± 15%	Nm
M2	Terminal connection torque			4 ± 15%	Nm
W	Weight (Approx.)			165	gm
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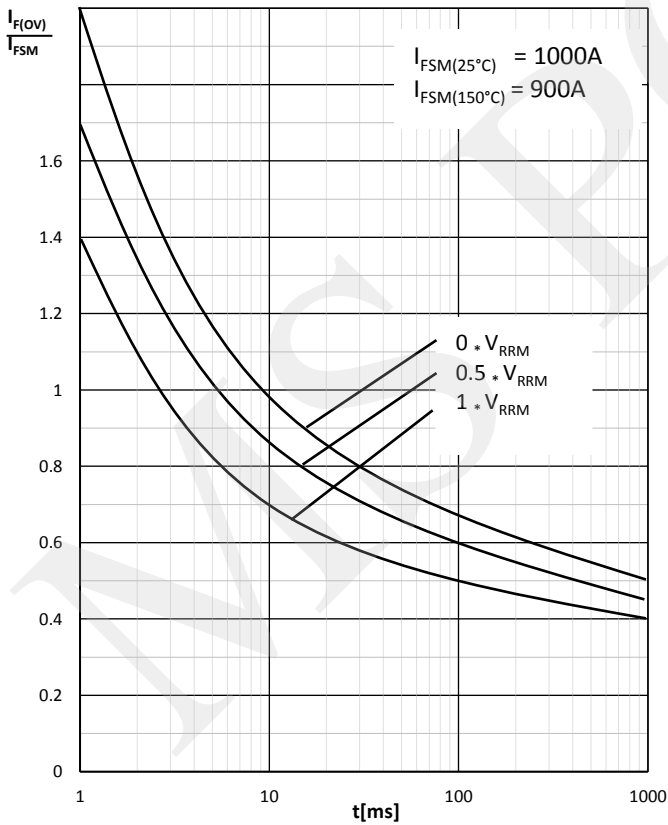
POWER DISSIPATION Vs OUTPUT CURRENT



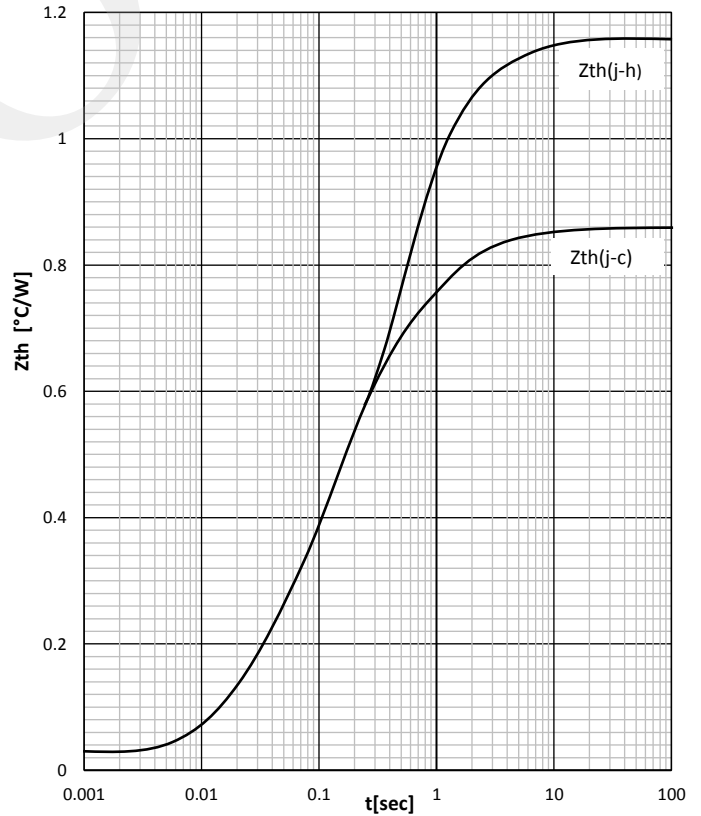
ON -STATE CHARACTERISTIC OF A DIODE ARM



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER ARM



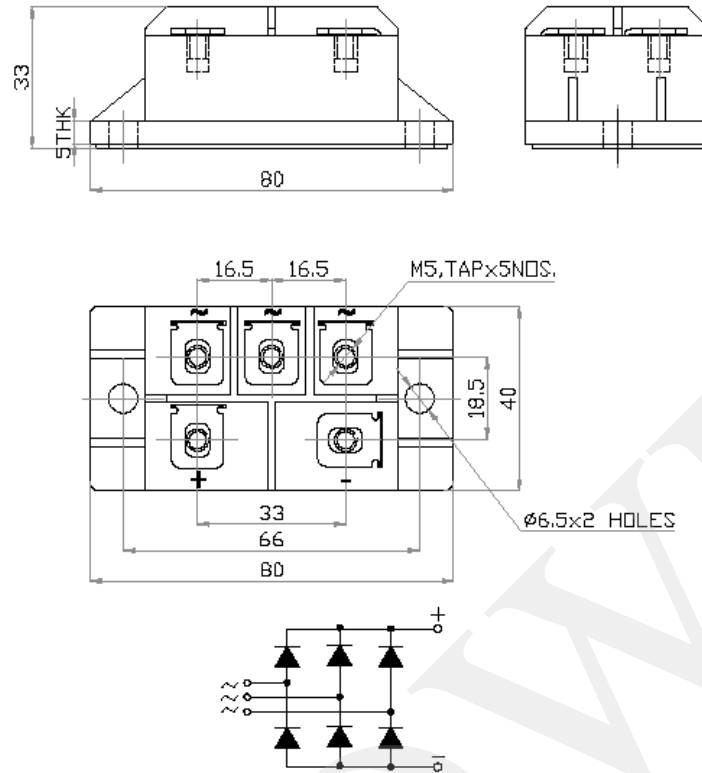
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