

Features

- Full blocking capability over wide temperature range
- Electrically insulated base plate
- Hard soldered joints for high reliability

Key Parameters

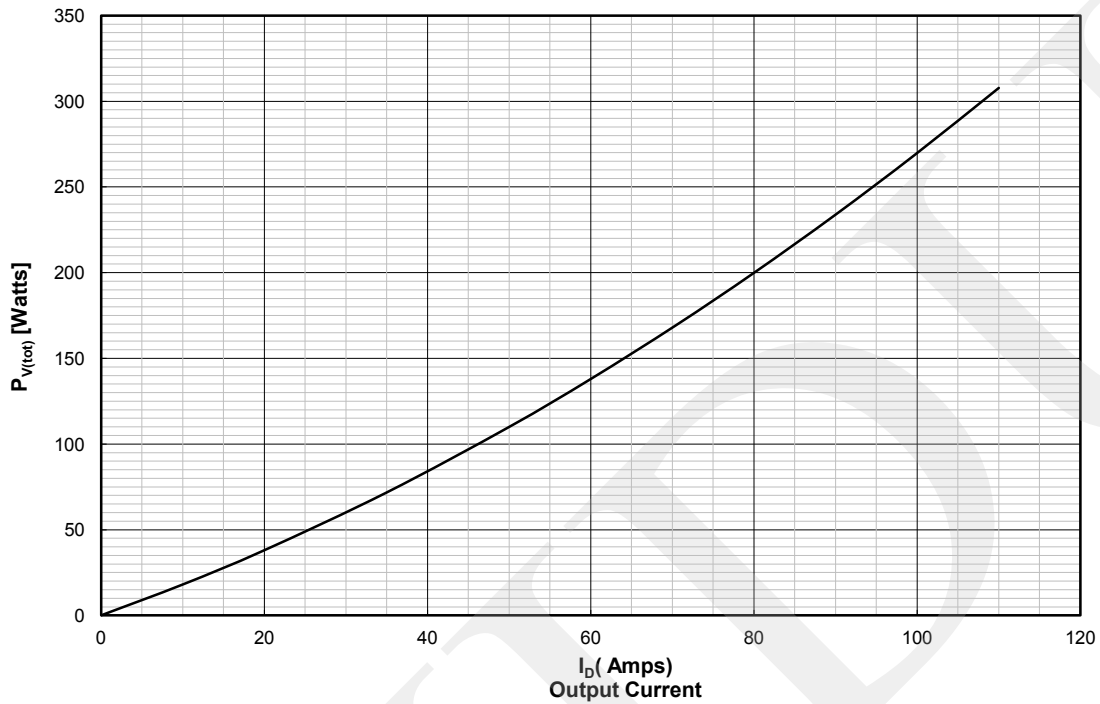
V_{RRM}	= 1600V
$I_{D(AV)}$	= 110A
I_{FSM}	= 1150A
$V_{F(TO)}$	= 0.85V
r_F	= 5mΩ

Applications

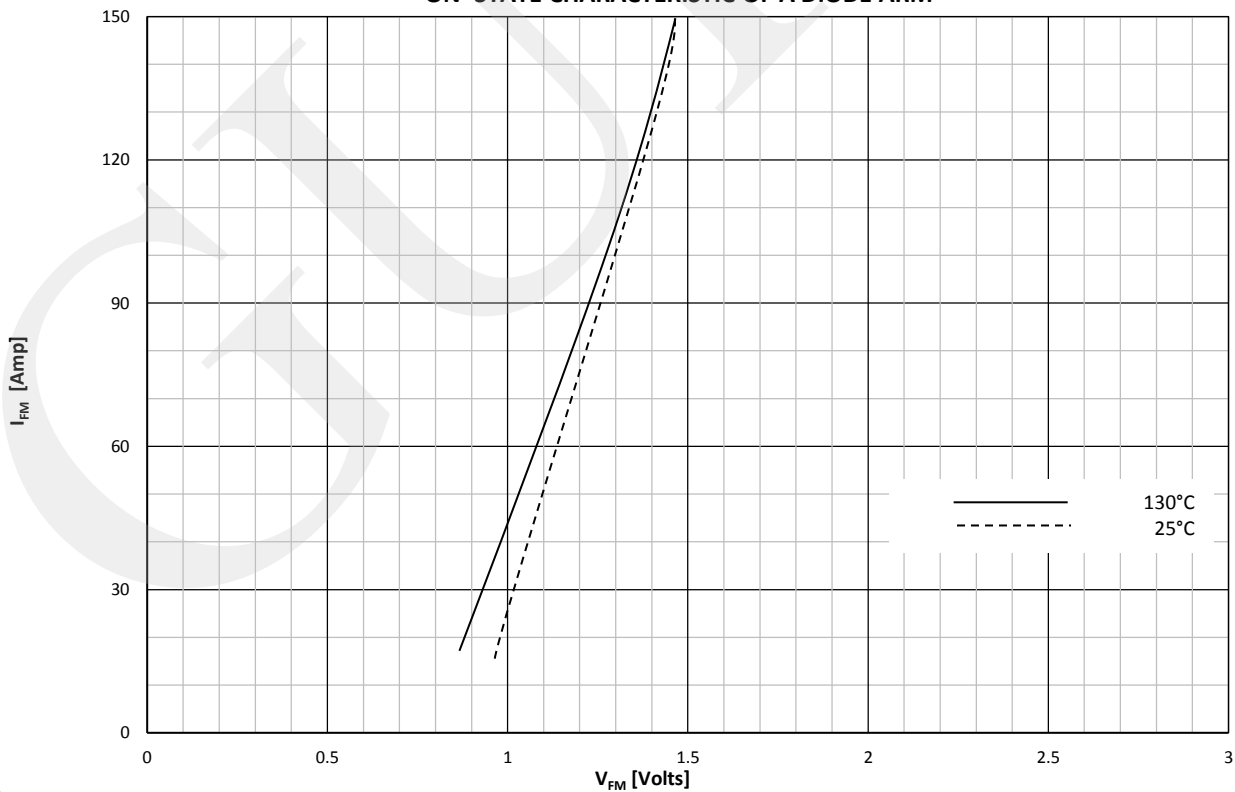
- Power Supplies
- Field supply for DC motors
- Uncontrolled Rectifiers

Symbol	Characteristic	Conditions	T _J [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		130	800 - 1600	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	130	5	mA
CONDUCTING					
$I_{D(AV)}$	DC output current	$T_{CASE}=85^{\circ}C$		110	A
I_{FSM}	Surge forward current	Sine wave, 10 ms Without reverse voltage	25	1150	A
			130	1000	A
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	6612	A ² s
			130	5000	A ² s
V_F	Forward voltage	Forward current = 100A	25	1.30	V
$V_{F(TO)}$	Threshold voltage		130	0.85	V
r_F	Forward slope resistance		130	5.0	mΩ
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, per chip per bridge		0.85 0.14	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, per bridge		0.5	°C/W
T_j	Max. junction temperature			130	°C
T_{stg}	Storage temperature			-40 125	°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
	Weight (Approx.)			165	g

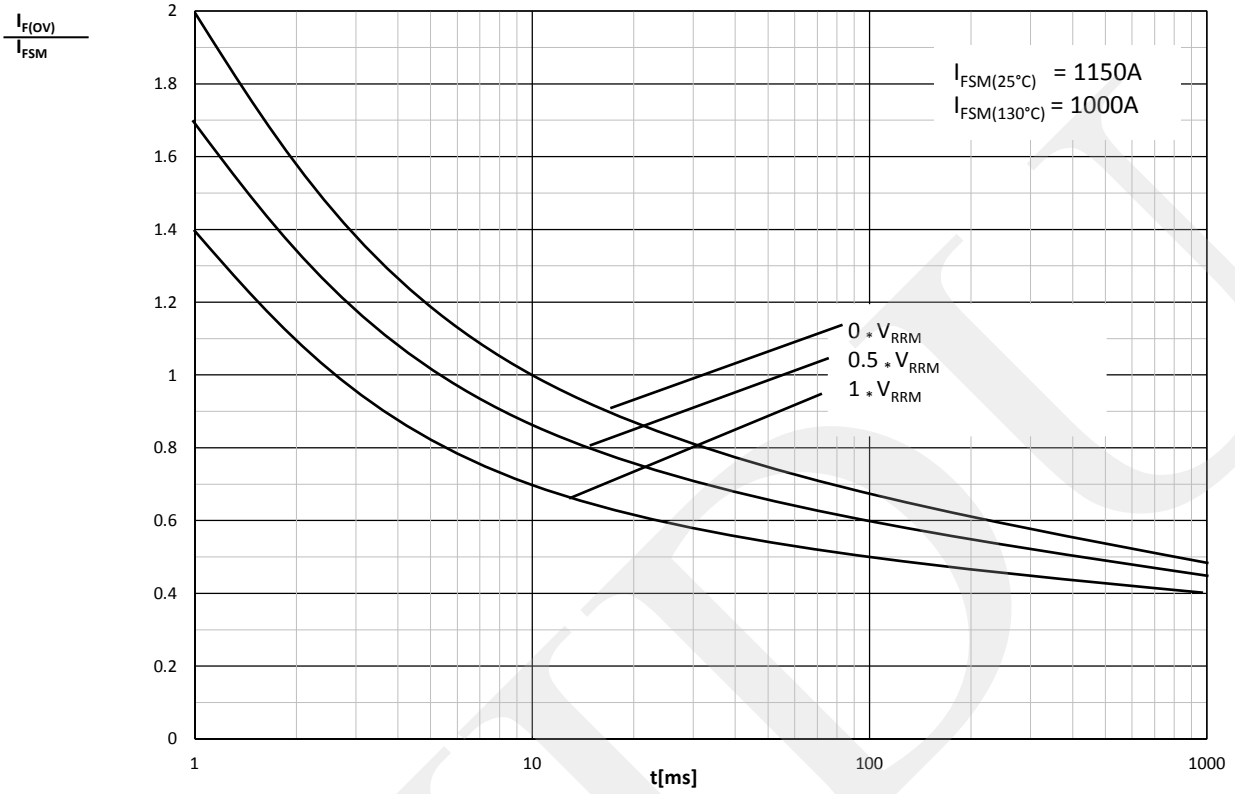
POWER DISSIPATION VS OUTPUT CURRENT



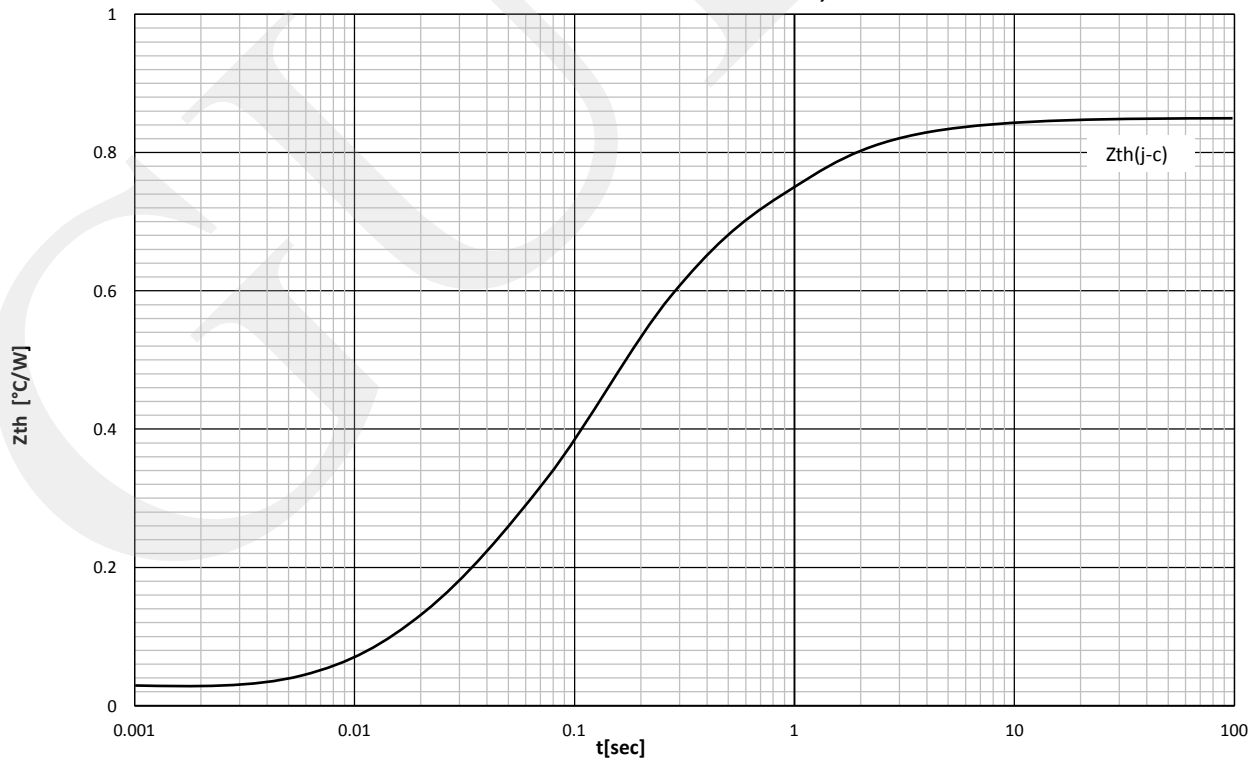
ON-STATE CHARACTERISTIC OF A DIODE ARM



SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE, PER CHIP

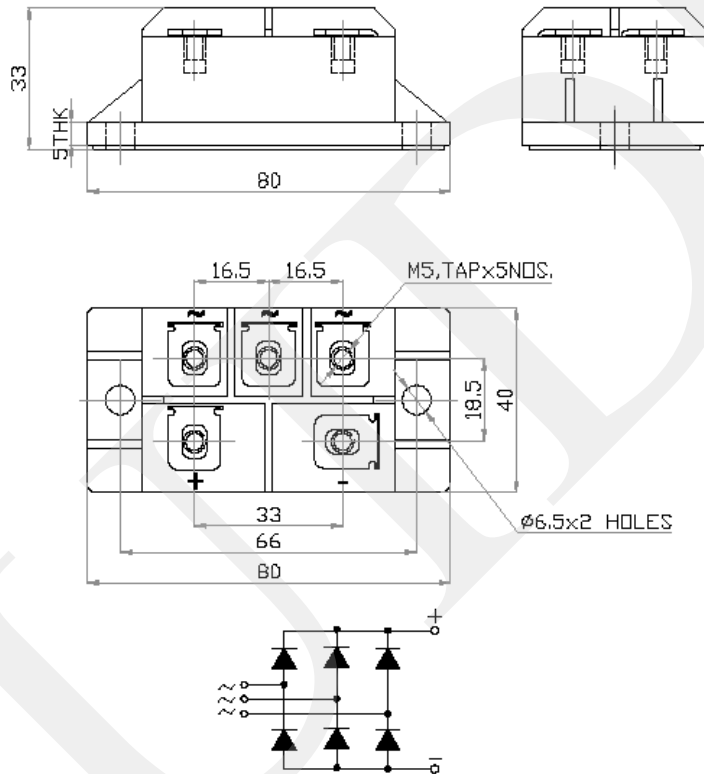


ORDERING INFORMATION

MDS	100	- X X
Three phase Diode bridge rectifier	Current Code	Voltage Code Code X 100 = V_{RRM}

Order Code MDS100-16 : 1600V V_{RRM} , Three phase diode bridge rectifier

Outline



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In the interest of product improvement, GUIDU reserves the right to change specifications at any time without prior notice