



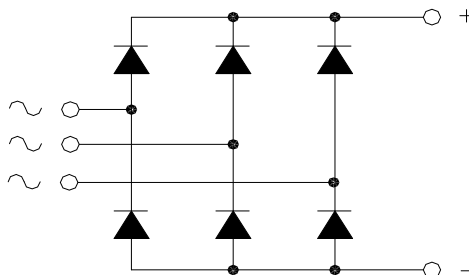
RADDITAL

www.raddital.com

DBM50

POWER RECTIFIER BRIDGE

Output Current **50 A**



V_{RRM}	V_{RSM}	P/N
400	500	DBM50.04
600	700	DBM50.06
800	900	DBM50.08
1200	1300	DBM50.12
1600	1700	DBM50.16

Features

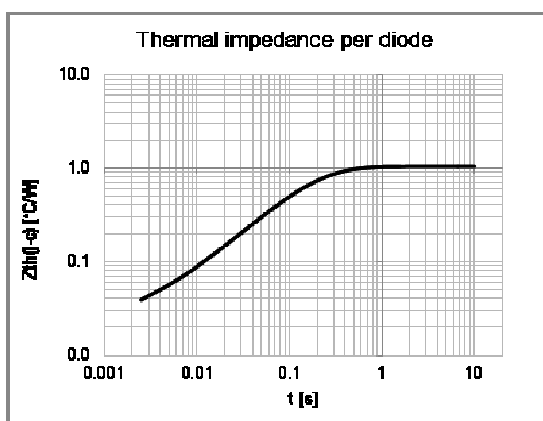
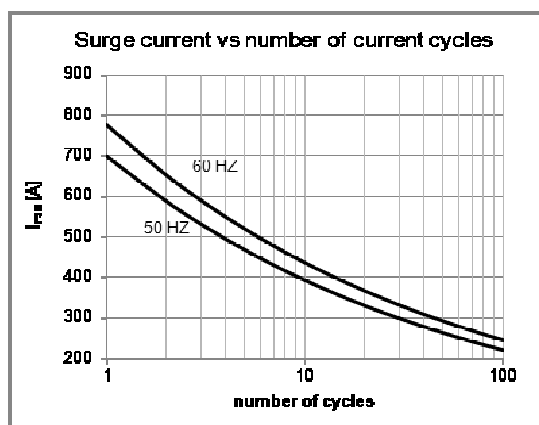
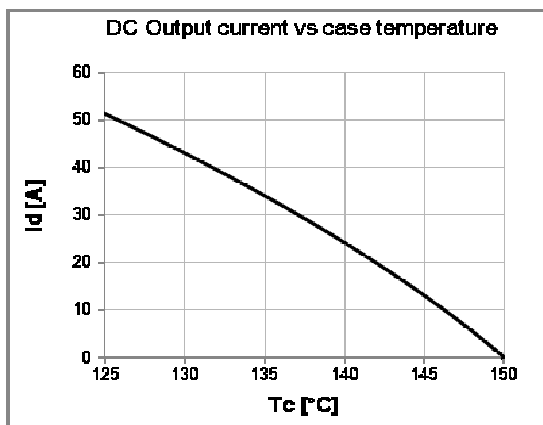
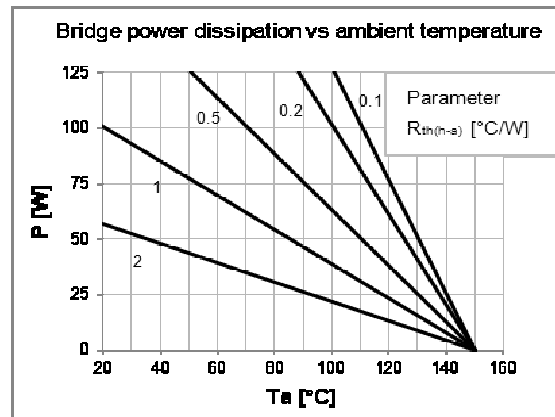
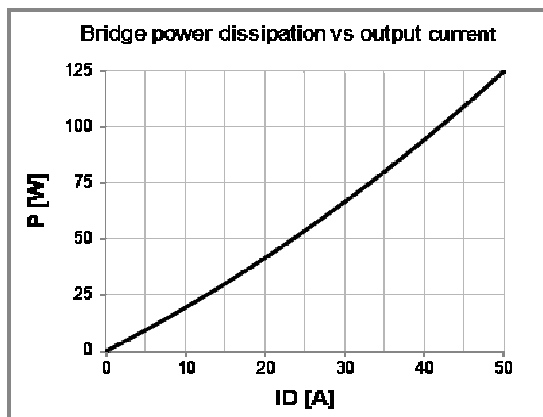
Low forward voltage diodes for high surge capability
Low thermal impedance packaging
Electrically insulated case

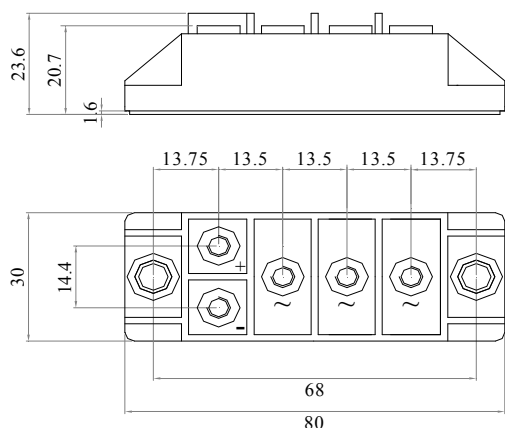
Applications

Input rectifier for variable frequency drives
Battery charger rectifiers
Three phase rectifier for power supplies
Rectifiers for DC motor fields supplies

Diodes characteristics		Conditions	T_j [°C]	Value
I_{RRM}	Max repetitive peak reverse current	$V = V_{RRM}$	150	4 mA
$V_{F(TO)}$	Threshold voltage		150	0,9 V
r_F	Forward slope resistance		150	7,0 mΩ
V_{FM}	Peak forward voltage, max	$I_F = 100A$	25	1,7 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms	150	700 A
I^2t	Max I^2t for fusing		150	2450 A ² s
T_{jmax}	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		1,04 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		1,16 °C/W

Module characteristics		Conditions	Value
I_D	DC output current	$T_c = 126$ °C	50 A
I_D	DC output current	$T_a = 40$ °C ; freely suspended	6 A
V_{INS}	RMS Insulating voltage	50 / 60 Hz $t = 1$ s ($i < 1$ mA)	3600 V
V_{INS}	RMS Insulating voltage	50 / 60 Hz $t = 60$ s ($i < 1$ mA)	3000 V
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation	0,174 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,193 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heatsink)	Mounting surface flat, smooth and greased	0,100 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Freely suspended or mounted on an insulator	9,0 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,5 °C/W
T_{stg}	Max storage temperature		150 °C
W	Weight		85 g
M_1	Mounting torque, ± 15 %		4,5 N·m 40 lb·inch
M_2	Terminal connection torque, ± 15 %		3,0 N·m 26 lb·inch




Fig.1
DBM50.04-SS5-FIX5-HP-P68-TA

Code:DBM70000500006

DBM50.06-SS5-FIX5-HP-P68-TA

Code:DBM70000500013

DBM50.08-SS5-FIX5-HP-P68-TA

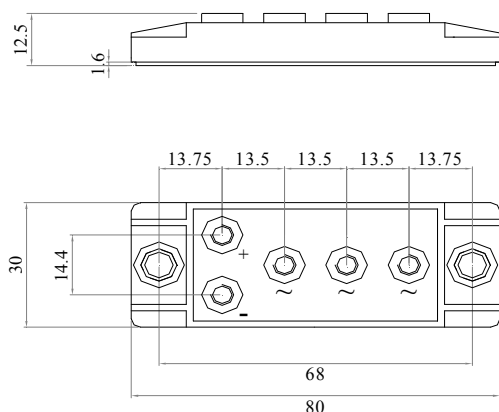
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DBM50.12-SS5-FIX5-HP-P68-TA

Code:DBM70000500027

DBM50.16-SS5-FIX5-HP-P68-TA

Code:DBM70000500034


Fig.2
DBM50.04-SS5-FIX5-LP-P68-TA

Code:DBM70000500005

DBM50.06-SS5-FIX5-LP-P68-TA

Code:DBM70000500012

DBM50.08-SS5-FIX5-LP-P68-TA

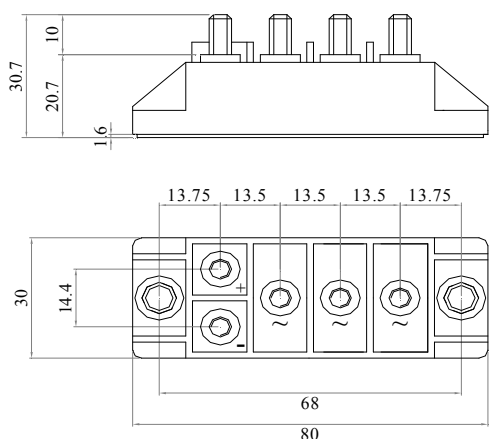
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DBM50.12-SS5-FIX5-LP-P68-TA

Code:DBM70000500026

DBM50.16-SS5-FIX5-LP-P68-TA

Code:DBM70000500033


Fig.3
DBM50.04-MM5x10-FIX5-HP-P68-TA

Code:DBM70000500004

DBM50.06-MM5x10-FIX5-HP-P68-TA

Code:DBM70000500011

DBM50.08-MM5x10-FIX5-HP-P68-TA

Code:DBM70000500018

DBM50.12-MM5x10-FIX5-HP-P68-TA

Code:DBM70000500025

DBM50.16-MM5x10-FIX5-HP-P68-TA

Code:DBM70000500032

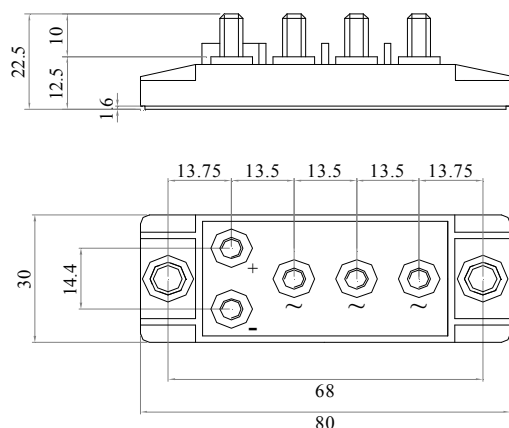
Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V
Power fix:

SS=Screw (M5)

MM=Bolt (M5)

Mounting fix:

FIX= Ø5,5


Fig.4 DBM50.04-MM5x10-FIX5-LP-P68-TA

Code:DBM70000500003

DBM50.06-MM5x10-FIX5-LP-P68-TA

Code:DBM70000500010

DBM50.08-MM5x10-FIX5-LP-P68-TA

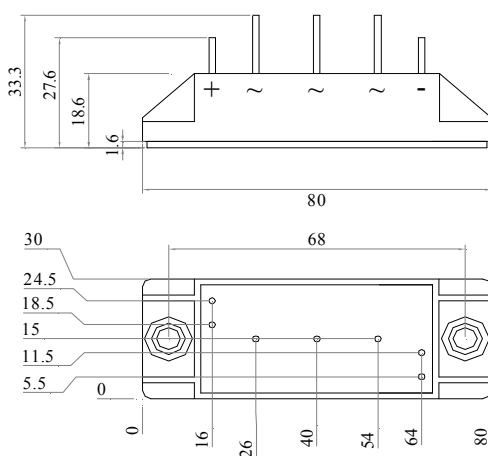
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DBM50.12-MM5x10-FIX5-LP-P68-TA

Code:DBM70000500024

DBM50.16-MM5x10-FIX5-LP-P68-TA

Code:DBM70000500031


Fig.5 DBM50.04-LL-FIX5-HP-P68-TA

Code:DBM70000500002

DBM50.06-LL-FIX5-HP-P68-TA

Code:DBM70000500009

DBM50.08-LL-FIX5-HP-P68-TA

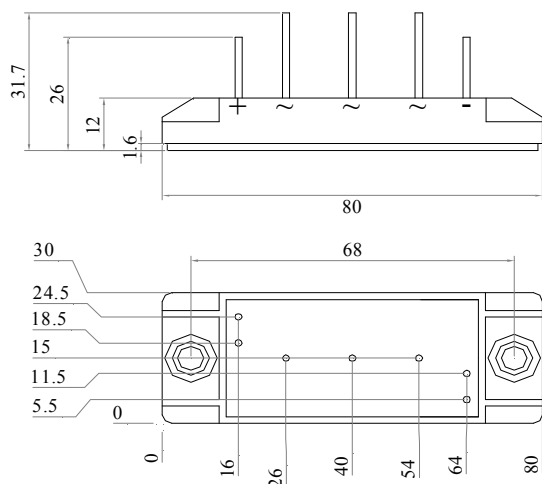
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DBM50.12-LL-FIX5-HP-P68-TA

Code:DBM70000500023

DBM50.16-LL-FIX5-HP-P68-TA

Code:DBM70000500030


Fig.6 DBM50.04-LL-FIX5-LP-P68-TA

Code:DBM70000500001

DBM50.06-LL-FIX5-LP-P68-TA

Code:DBM70000500008

DBM50.08-LL-FIX5-LP-P68-TA

Code:DBM70000500015

DBM50.12-LL-FIX5-LP-P68-TA

Code:DBM70000500022

DBM50.16-LL-FIX5-LP-P68-TA

Code:DBM70000500029

Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V

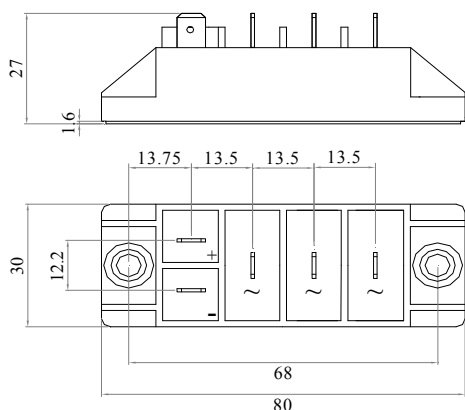
Power fix:

MM=Bolt (M5)

LL=Legs (Ø1,2)

Mounting fix:

FIX= Ø5,5


Fig.7
DBM50.04-FF-FIX5-HP-P68-TA

Code:DBM70000500000

DBM50.06-FF-FIX5-HP-P68-TA

Code:DBM70000500007

DBM50.08-FF-FIX5-HP-P68-TA

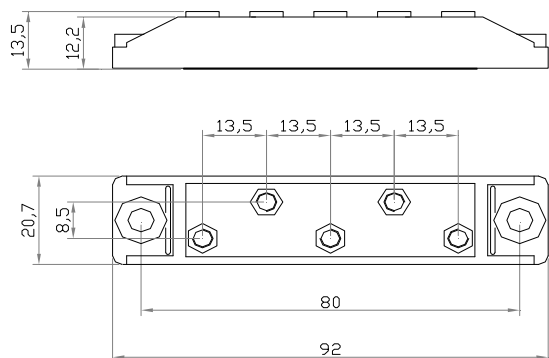
Code:DBM70000500014

DBM50.12-FF-FIX5-HP-P68-TA

Code:DBM70000500021

DBM50.16-FF-FIX5-HP-P68-TA

Code:DBM70000500028


Fig.8
DBM50.04-SS4-FIX5-LP-P80-TF

Code:DBM70000500090

DBM50.06-SS4-FIX5-LP-P80-TF

Code:DBM70000500091

DBM50.08-SS4-FIX5-LP-P80-TF

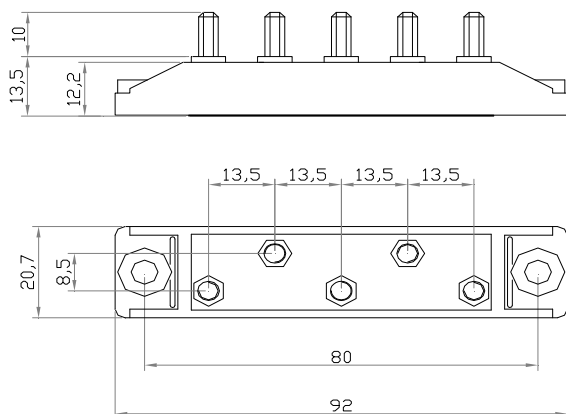
Code:DBM70000500092

DBM50.12-SS4-FIX5-LP-P80-TF

Code:DBM70000500093

DBM50.16-SS4-FIX5-LP-P80-TF

Code:DBM70000500094


Fig.9
DBM50.04-MM4x10-FIX5-LP-P80-TF

Code:DBM70000500095

DBM50.06-MM4x10-FIX5-LP-P80-TF

Code:DBM70000500096

DBM50.08-MM4x10-FIX5-LP-P80-TF

Code:DBM70000500097

DBM50.12-MM4x10-FIX5-LP-P80-TF

Code:DBM70000500098

DBM50.16-MM4x10-FIX5-LP-P80-TF

Code:DBM70000500099

Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V
Power fix:

FF=Faston(6,3x0,8)

SS=Screw (M4)

MM=Bolt (M4)

Mounting fix:

FIX= Ø5,5