



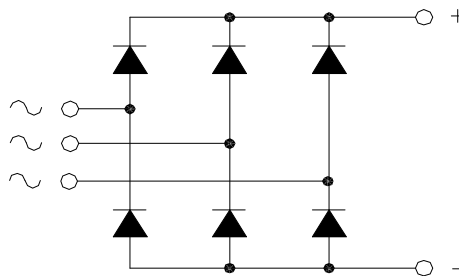
RADDITAL

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DBM90

POWER RECTIFIER BRIDGE

Output Current **90 A**



V_{RRM}	V_{RSM}	P/N
400	500	DBM90.04
600	700	DBM90.06
800	900	DBM90.08
1200	1300	DBM90.12
1600	1700	DBM90.16

Features

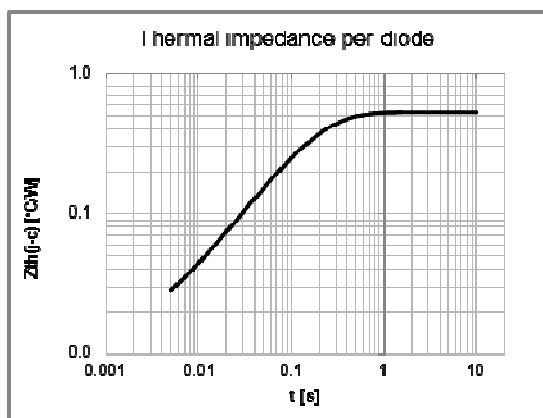
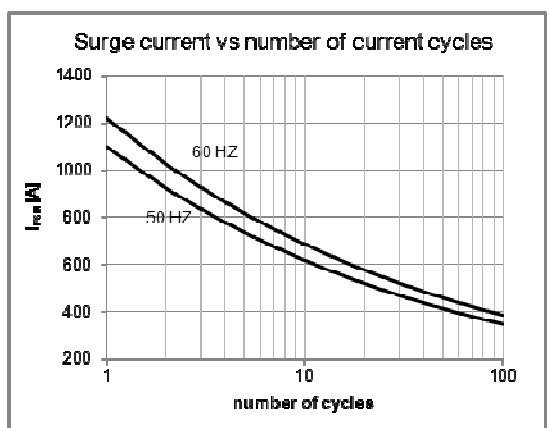
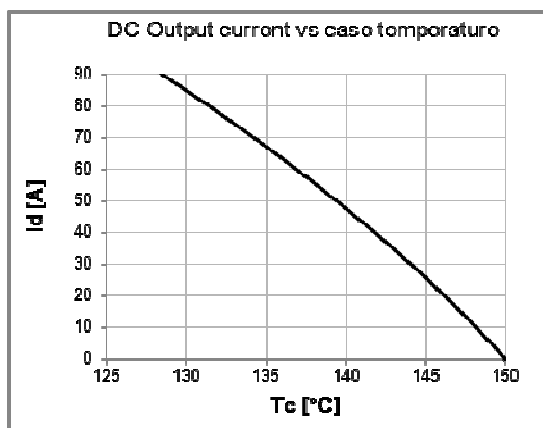
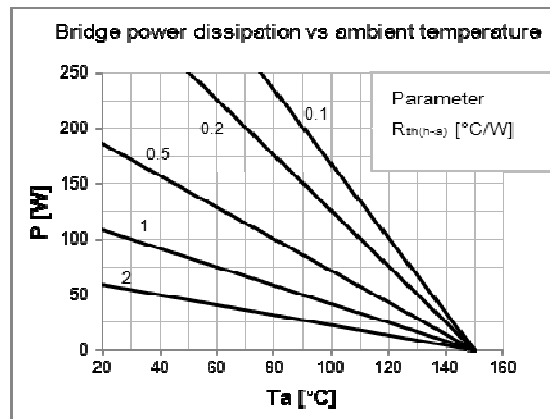
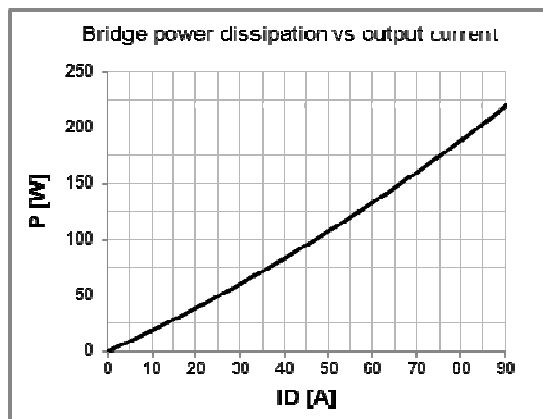
Low forward voltage diodes for high surge capability
Low thermal impedance packaging
Electrically insulated case

Applications

Input rectifier for variable frequency drives
Battery charger rectifiers
Single 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	3,5 mΩ
V_{FM}	Peak forward voltage, max	$I_F = 100A$	25	1,2 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms	150	1100 A
I^2t	Max I^2t for fusing		150	6050 A ² s
T_{jmax}	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,53 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 120° conduction		0,59 °C/W

Module characteristics		Conditions	Value
I_D	DC output current	$T_c = 128$ °C	90 A
I_D	DC output current	$T_a = 40$ °C ; freely suspended	8 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	0,088 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 120° conduction	0,098 °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	8,5 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to ambient)	Mounted on a painted metal sheet 250x250x1 mm	3,0 °C/W
T_{stg}	Max storage temperature		150 °C
W	Weight		97 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



(dimensions in mm)

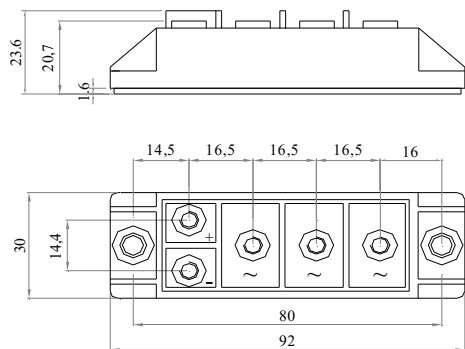


Fig.1 DBM90.04-SS5-FIX5-HP-P80-TA

Code:DBM70000900003

DBM90.06-SS5-FIX5-HP-P80-TA

Code:DBM70000900007

DBM90.08-SS5-FIX5-HP-P80-TA

Code:DBM70000900011

DBM90.12-SS5-FIX5-HP-P80-TA

Code:DBM70000900015

DBM90.16-SS5-FIX5-HP-P80-TA

Code:DBM70000900019

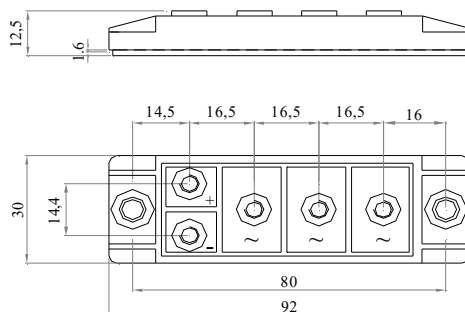


Fig.2 DBM90.04-SS5-FIX5-LP-P80-TA

Code:DBM70000900002

DBM90.06-SS5-FIX5-LP-P80-TA

Code:DBM70000900006

DBM90.08-SS5-FIX5-LP-P80-TA

Code:DBM70000900010

DBM90.12-SS5-FIX5-LP-P80-TA

Code:DBM70000900014

DBM90.16-SS5-FIX5-LP-P80-TA

Code:DBM70000900018

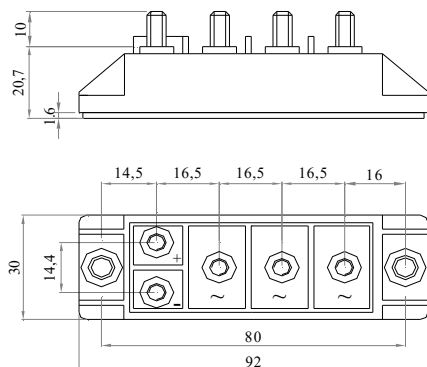


Fig.3 DBM90.04-MM5x10-FIX5-HP-P80-TA

Code:DBM70000900001

DBM90.06-MM5x10-FIX5-HP-P80-TA

Code:DBM70000900005

DBM90.08-MM5x10-FIX5-HP-P80-TA

Code:DBM70000900009

DBM90.12-MM5x10-FIX5-HP-P80-TA

Code:DBM70000900013

DBM90.16-MM5x10-FIX5-HP-P80-TA

Code:DBM70000900017

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

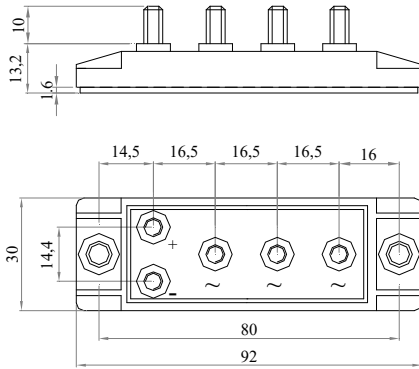
Power fix:

SS=Screw (M5)

MM=Bolt (M5)

Mounting fix:

FIX= $\varnothing$ 5,5


Fig.4
DBM90.04-MM5x10-FIX5-LP-P80-TA

Code:DBM70000900000

DBM90.06-MM5x10-FIX5-LP-P80-TA

Code:DBM70000900004

DBM90.08-MM5x10-FIX5-LP-P80-TA

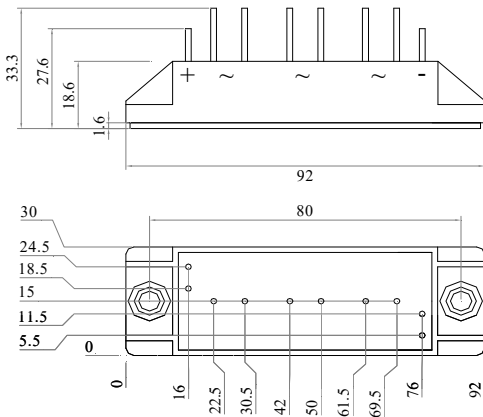
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DBM90.12-MM5x10-FIX5-LP-P80-TA

Code:DBM70000900012

DBM90.16-MM5x10-FIX5-LP-P80-TA

Code:DBM70000900016


Fig.5
DBM90.04-LL-FIX5-HP-P80-TA

Code:DBM70000900023

DBM90.06-LL-FIX5-HP-P80-TA

Code:DBM70000900025

DBM90.08-LL-FIX5-HP-P80-TA

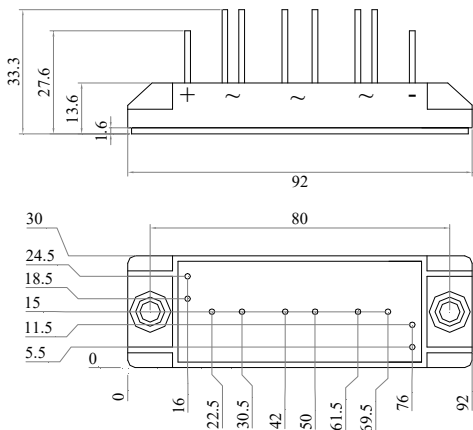
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DBM90.12-LL-FIX5-HP-P80-TA

Code:DBM70000900029

DBM90.16-LL-FIX5-HP-P80-TA

Code:DBM70000900021


Fig.6
DBM90.04-LL-FIX5-LP-P80-TA

Code:DBM70000900022

DBM90.06-LL-FIX5-LP-P80-TA

Code:DBM70000900024

DBM90.08-LL-FIX5-LP-P80-TA

Code:DBM70000900026

DBM90.12-LL-FIX5-LP-P80-TA

Code:DBM70000900028

DBM90.16-LL-FIX5-LP-P80-TA

Code:DBM70000900020

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