



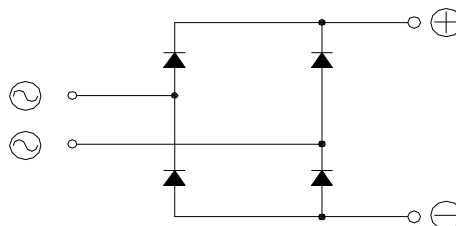
RADDITAL

www.raddital.com

BM90

POWER RECTIFIER BRIDGE

Output Current **90 A**



V_{RRM}	V_{RSM}	P/N
400	500	BM90.04
600	700	BM90.06
800	900	BM90.08
1200	1300	BM90.12
1600	1700	BM90.16

Features

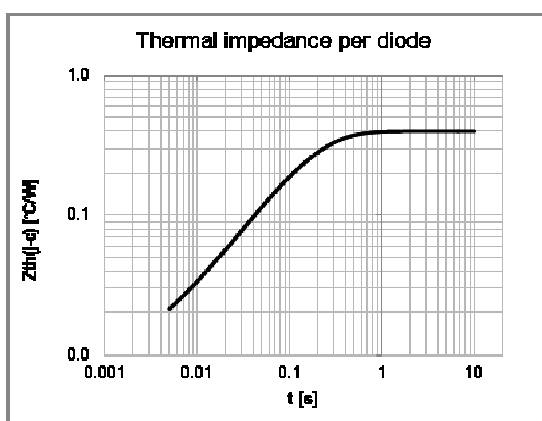
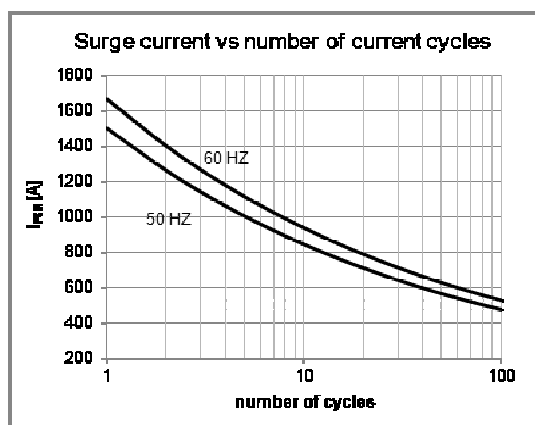
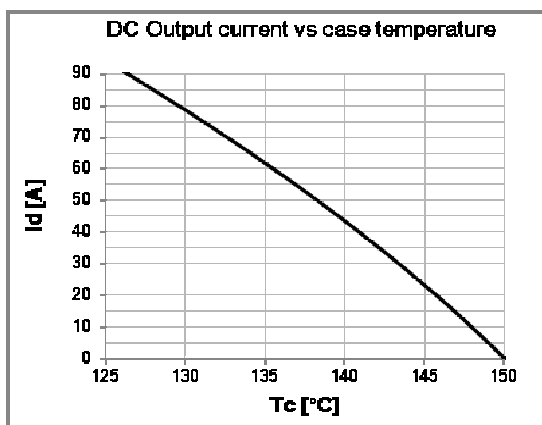
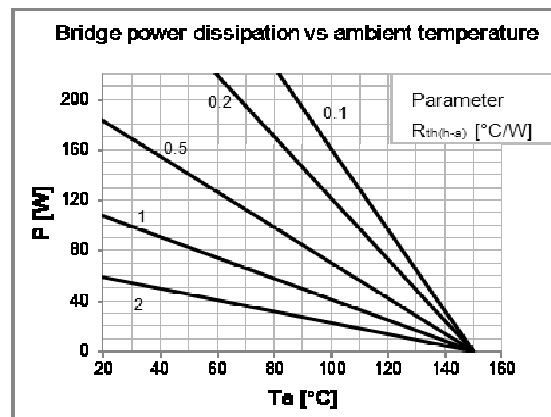
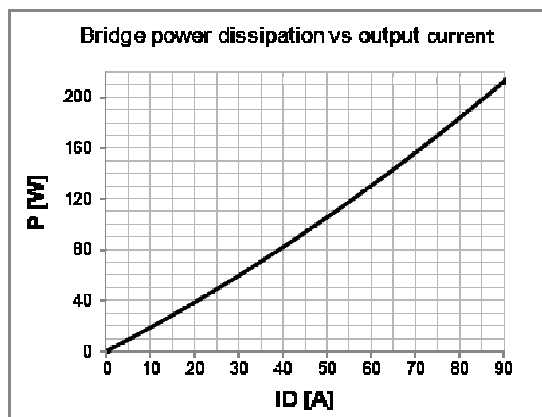
Low forward voltage diodes for high surge capability
Low thermal impedance packaging
Electrically insulated case

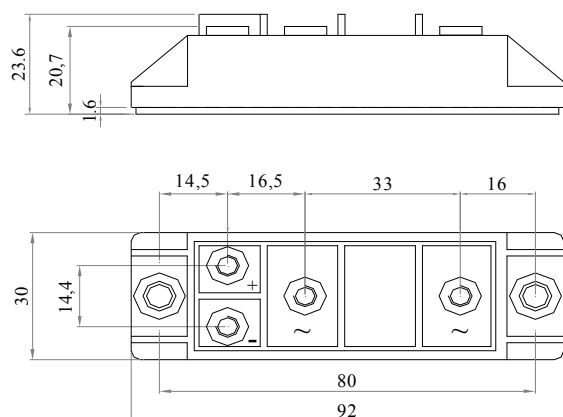
Applications

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	2,5 mΩ
V_{FM}	Peak forward voltage, max	$I_F = 100A$	25	1,1 V
I_{FSM}	Surge forward current	Half sine wave, 10 ms	150	1500 A
I^2t	Max I^2t for fusing		150	11250 A ² s
T_{jmax}	Operating junction temperature			-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case)	DC operation		0,40 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rectangular wave 180° conduction		0,44 °C/W

Module characteristics		Conditions	Value
I_D	DC output current	$T_c = 126$ °C	90 A
I_D	DC output current	$T_a = 40$ °C ; freely suspended	10 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	0,100 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case)	Rect. wave 180° conduction	0,111 °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	3,8 °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
BM90.04-SS5-FIX5-HP-P80-TA

Code:BM60000900003

BM90.06-SS5-FIX5-HP-P80-TA

Code:BM60000900011

BM90.08-SS5-FIX5-HP-P80-TA

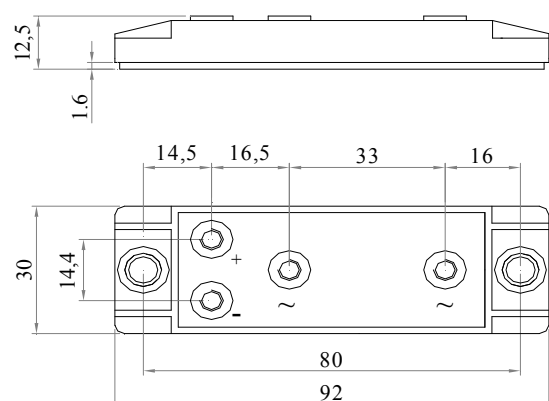
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BM90.12-SS5-FIX5-HP-P80-TA

Code:BM60000900027

BM90.16-SS5-FIX5-HP-P80-TA

Code:BM60000900035


Fig.2
BM90.04-SS5-FIX5-LP-P80-TA

Code:BM60000900002

BM90.06-SS5-FIX5-LP-P80-TA

Code:BM60000900010

BM90.08-SS5-FIX5-LP-P80-TA

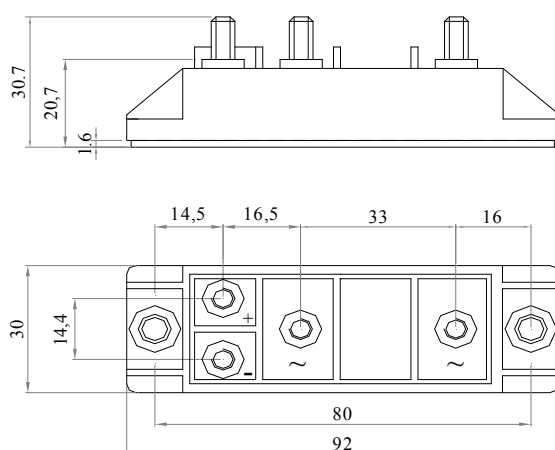
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BM90.12-SS5-FIX5-LP-P80-TA

Code:BM60000900026

BM90.16-SS5-FIX5-LP-P80-TA

Code:BM60000900034


Fig.3
BM90.04-MM5x10-FIX5-HP-P80-TA

Code:BM60000900001

BM90.06-MM5x10-FIX5-HP-P80-TA

Code:BM60000900009

BM90.08-MM5x10-FIX5-HP-P80-TA

Code:BM60000900017

BM90.12-MM5x10-FIX5-HP-P80-TA

Code:BM60000900025

BM90.16-MM5x10-FIX5-HP-P80-TA

Code:BM60000900033

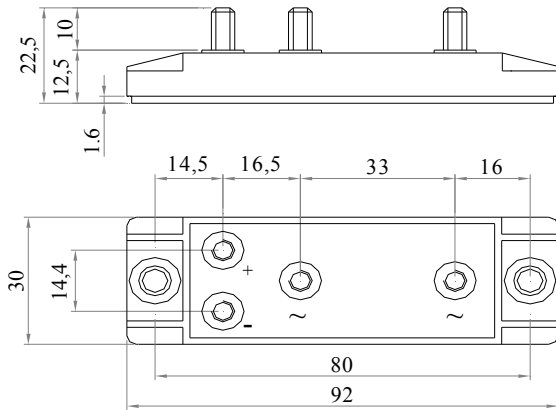
Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V
Power fix:

SS=Screw (M5)

MM=Bolt (M5)

Mounting fix:

FIX= Ø5,5


Fig.4
BM90.04-MM5x10-FIX5-LP-P80-TA

Code:BM60000900000

BM90.06-MM5x10-FIX5-LP-P80-TA

Code:BM60000900008

BM90.08-MM5x10-FIX5-LP-P80-TA

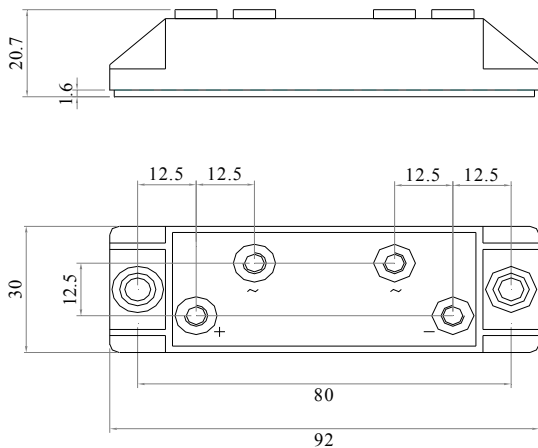
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BM90.12-MM5x10-FIX5-LP-P80-TA

Code:BM60000900024

BM90.16-MM5x10-FIX5-LP-P80-TA

Code:BM60000900032


Fig.5
BM90.04-SS5-FIX5-HP-P80-TB

Code:BM60000900007

BM90.06-SS5-FIX5-HP-P80-TB

Code:BM60000900015

BM90.08-SS5-FIX5-HP-P80-TB

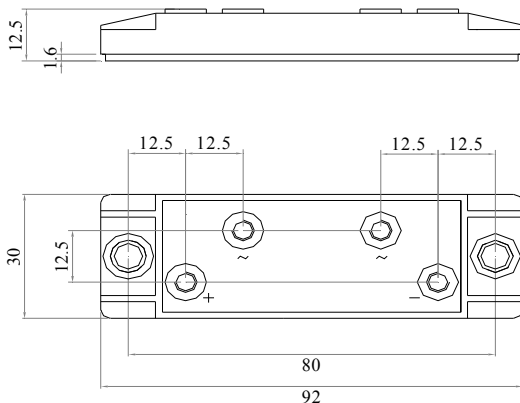
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BM90.12-SS5-FIX5-HP-P80-TB

Code:BM60000900031

BM90.16-SS5-FIX5-HP-P80-TB

Code:BM60000900039


Fig.6
BM90.04-SS5-FIX5-LP-P80-TB

Code:BM60000900006

BM90.06-SS5-FIX5-LP-P80-TB

Code:BM60000900014

BM90.08-SS5-FIX5-LP-P80-TB

Code:BM60000900022

BM90.12-SS5-FIX5-LP-P80-TB

Code:BM60000900030

BM90.16-SS5-FIX5-LP-P80-TB

Code:BM60000900038

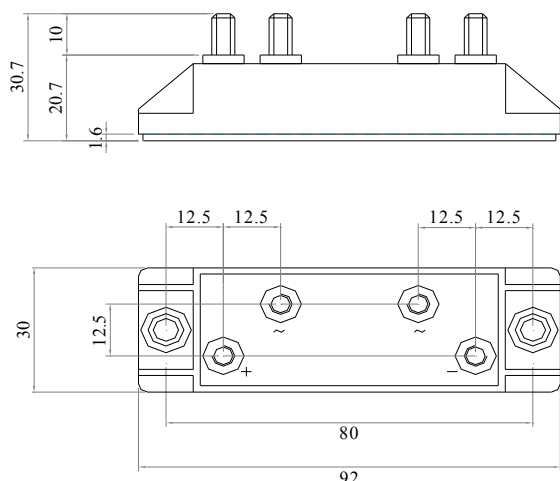
Voltage:04=400V 06=600V 08=800V 12=1200V 16=1600V
Power fix:

SS=Screw (M5)

MM=Bolt (M5)

Mounting fix:

FIX= Ø5,5


Fig.7
BM90.04-MM5x10-FIX5-HP-P80-TB

Code:BM60000900005

BM90.06-MM5x10-FIX5-HP-P80-TB

Code:BM60000900013

BM90.08-MM5x10-FIX5-HP-P80-TB

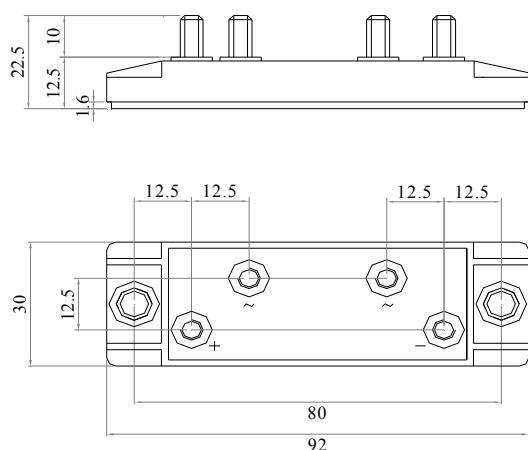
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BM90.12-MM5x10-FIX5-HP-P80-TB

Code:BM60000900029

BM90.16-MM5x10-FIX5-HP-P80-TB

Code:BM60000900037


Fig.8
BM90.04-MM5x10-FIX5-LP-P80-TB

Code:BM60000900004

BM90.06-MM5x10-FIX5-LP-P80-TB

Code:BM60000900012

BM90.08-MM5x10-FIX5-LP-P80-TB

Code:BM60000900020

BM90.12-MM5x10-FIX5-LP-P80-TB

Code:BM60000900028

BM90.16-MM5x10-FIX5-LP-P80-TB

Code:BM60000900036

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

MM=Bolt (M5)

Mounting fix:

FIX= Ø5,5