



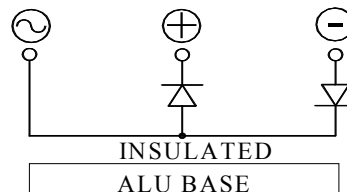
HBY100.017

Schottky Technology

INSULATED DIODE MODULE

Output Current **100A**

Blocking Voltage **170V**



V_{RRM}	V_{RSM}	P/N
170	200	HBY100.017

Features

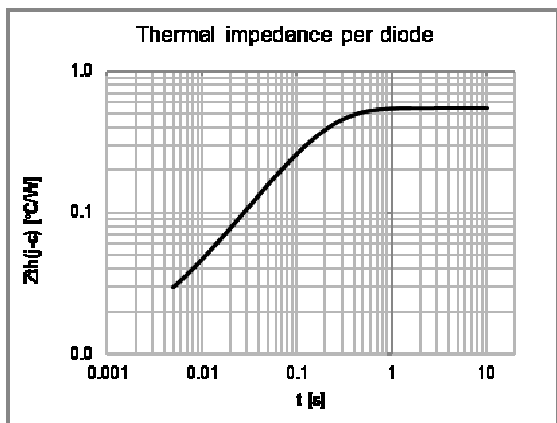
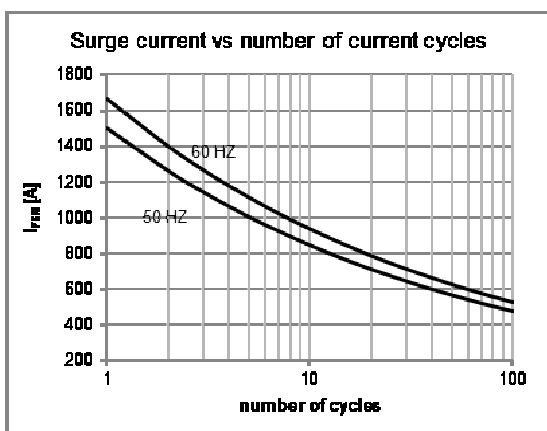
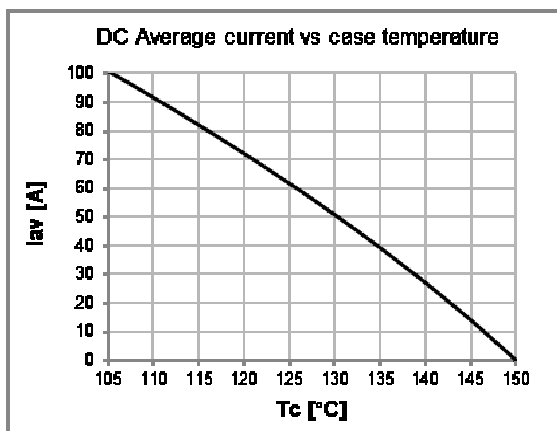
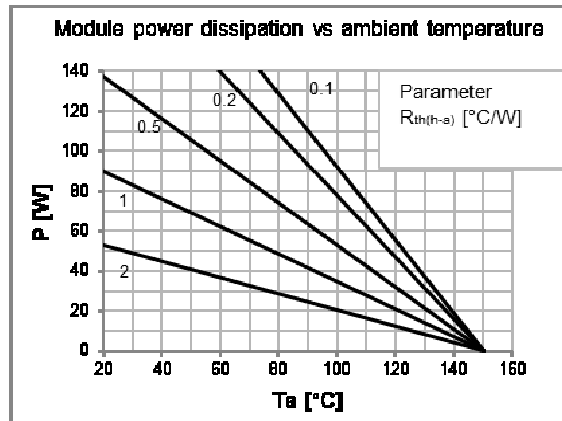
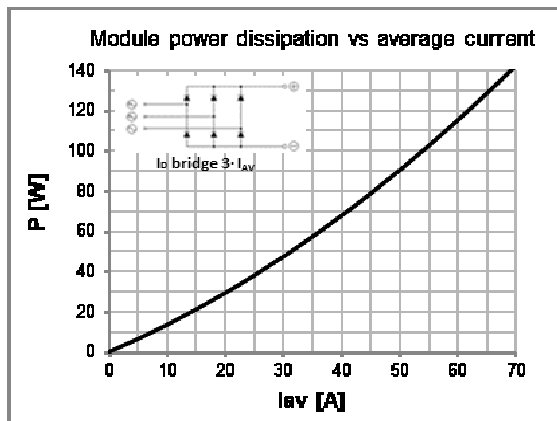
- High efficiency operation
- High frequency operation
- Low forward voltage diodes for high surge capability
- Low thermal impedance packaging
- Electrically insulated case

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	150 mA
$V_{F(TO)}$	Threshold voltage	150	0,62 V
r_F	Forward slope resistance	150	1,9 mΩ
V_{FM}	Peak forward voltage, max $I_F = 100A$	25	0,9 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
$I_{F(AV)}$	Average forward current $T_c = 105\text{ °C} - DC$		100 A
$I_{F(AV)}$	Average forward current $T_c = 105\text{ °C} - \text{in three phase bridge configuration}$		75 A
$I_{F(AV)}$	Average forward current $T_c = 105\text{ °C} - \text{in single phase bridge configuration}$		77 A
T_{jmax}	Operating junction temperature		-40 / 150 °C
$R_{th(j-c)}$	Thermal resistance (junction to case) DC operation		0,55 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case) Rectangular wave 120° conduction		0,59 °C/W

Module characteristics	Conditions	Value
V_{INS}	RMS Insulating voltage 50 / 60 Hz $t = 1\text{ s}$ ($i < 1\text{ mA}$)	3600 V
V_{INS}	RMS Insulating voltage 50 / 60 Hz $t = 60\text{ s}$ ($i < 1\text{ mA}$)	3000 V
$R_{th(j-c)}$	Thermal resistance (junction to case) DC operation	0,275 °C/W
$R_{th(j-c)}$	Thermal resistance (junction to case) Rect. wave 120° conduction	0,295 °C/W
$R_{th(c-h)}$	Thermal resistance (case to heat sink) Mounting surface flat, smooth and greased	0,150 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to air) Freely suspended or mounted on an insulator	9,0 °C/W
$R_{th(j-a)}$	Thermal resistance (junction to air) Mounted on a painted metal sheet 250x250x1 mm	4,0 °C/W
T_{stg}	Max storage temperature	150 °C
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



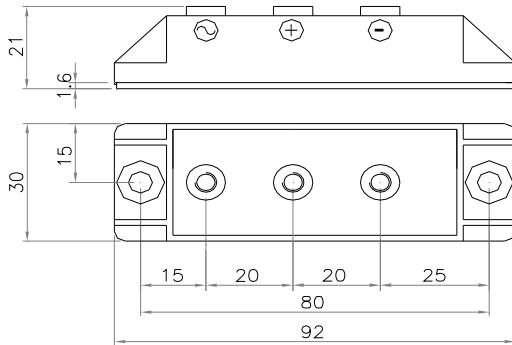


Fig.1 HBV100.017-SS5-FIX5-HP-P80-TA

Code:HB90001000009

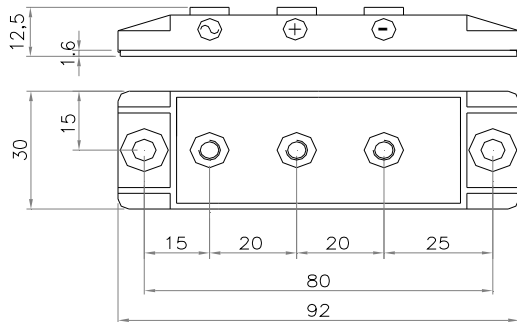


Fig.2 HBV100.017-SS5-FIX5-LP-P80-TA

Code:HB90001000010

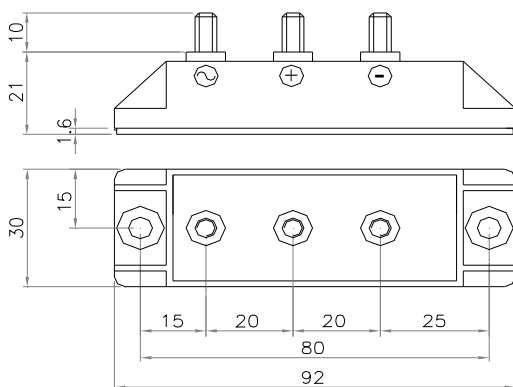


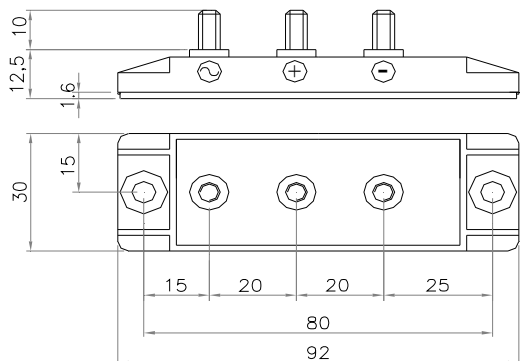
Fig.3 HBV100.017-MM5x10-FIX5-HP-P80-TA

Code:HB90001000011

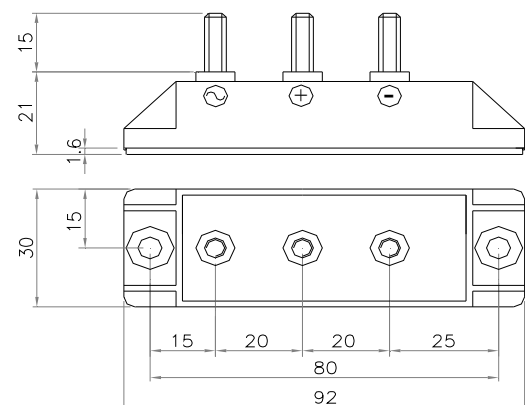
Power fix:
SS=Screw (M5)

Mounting fix:
FIX= Ø5,5

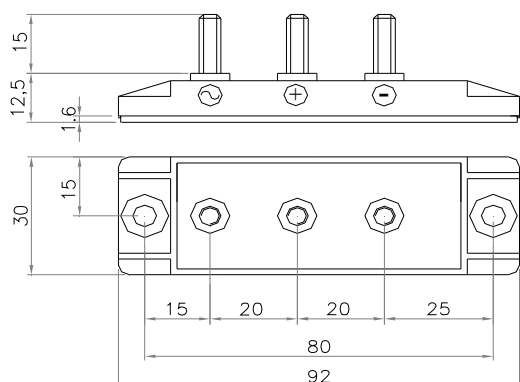
Profile:
HP=High Profile LP=Low Profile


Fig.4 HBV100.017-MM5x10-FIX5-LP-P80-TA

Code:HB90001000012


Fig.5 HBV100.017-MM5x15-FIX5-HP-P80-TA

Code:HB90001000013


Fig.6 HBV100.017-MM5x15-FIX5-LP-P80-TA

Code:HB90001000014

Power fix:
SS=Screw (M5)

Mounting fix:
FIX= Ø5,5

Profile:
HP=High Profile LP=Low Profile