

Power Bridge Rectifiers

BI 6 P

Preliminary Data

Features

- Compact plastic package with in-line wire leads
- Ideal for printed circuit boards
- Allow easy heatsink mounting
- Solder temperature: 260°C max. (max. 5 s)
- Blocking voltage up to 1600 V
- High surge current
- Plastic material is UL 94V-0 classified
- Standard packing: 54 pieces box

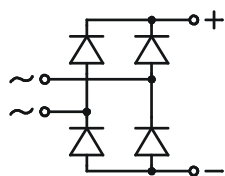
Typical Applications*

- Rectifier for power supplies
- Input rectifier for variable frequency drives
- Rectifier for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network: RC: 10 nF, 20...50 Ω ($P_R = 1$ W)

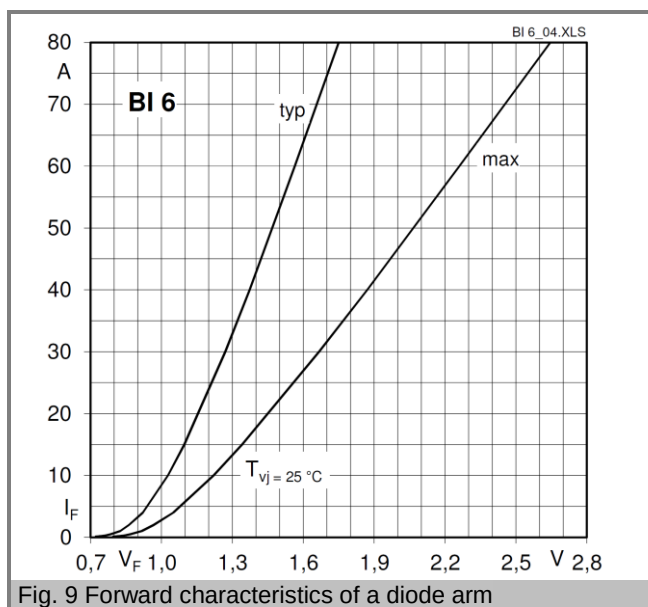
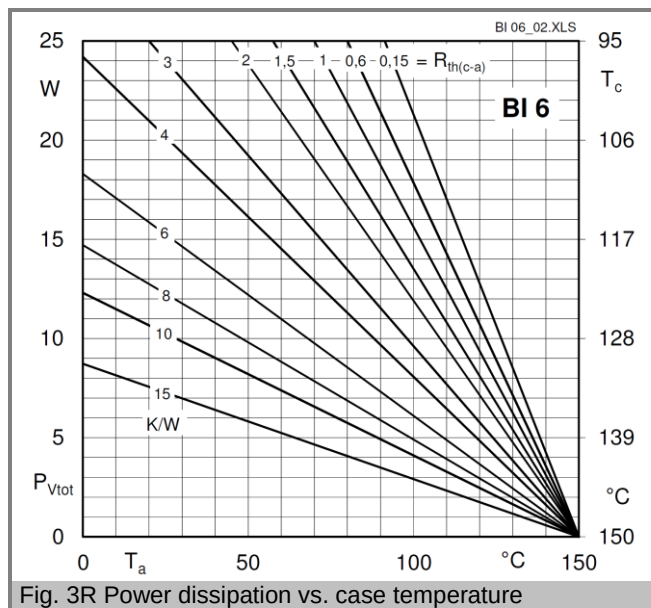
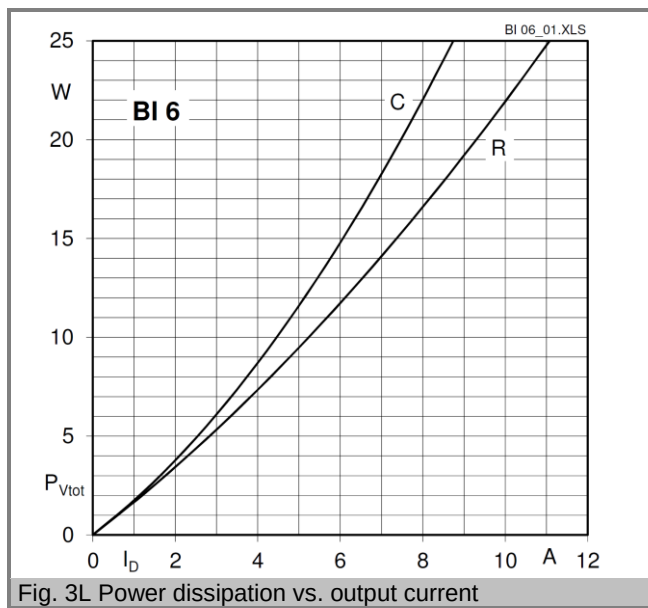
- 1) Mounted on a 50 x 75 mm p.c.b.
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm
- 3) Available in limited quantities

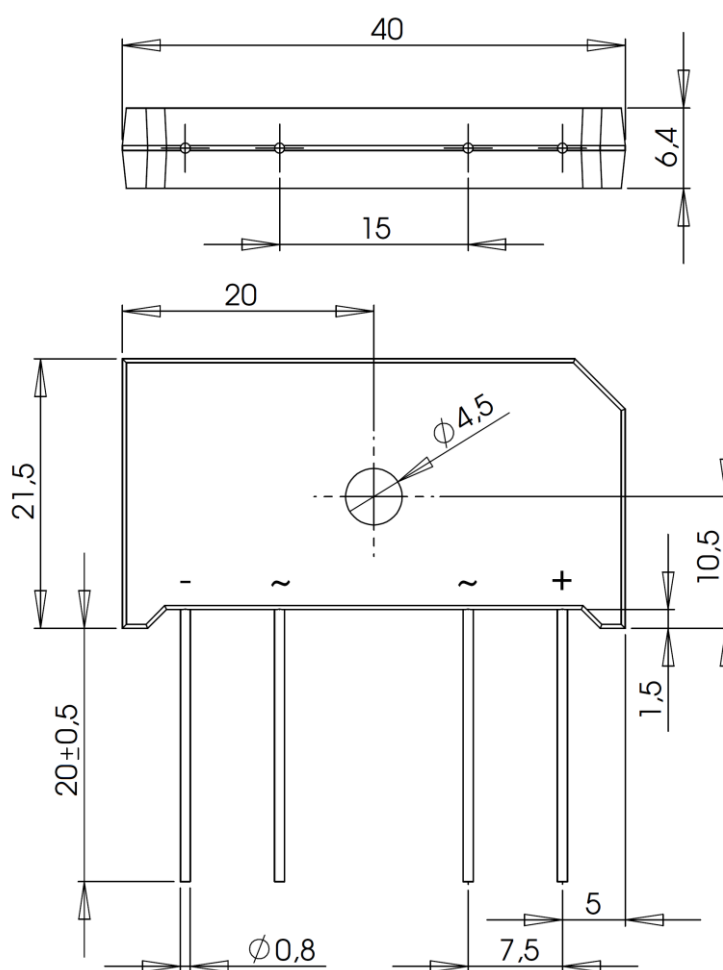
V_{RSM}, V_{RRM} V	V_{VRMS} V	$I_D = 10$ A ($T_c = 102$ °C) Types	C_{max} μ F	R_{min} Ω
400	280	BI 6-04 P		0,75
800	560	BI 6-08 P		1,8
1200	800	BI 6-12 P		2,7
1600	1000	BI 6-16 P		3,9
1800	1250	BI 6-18 P		4,5
2000	1400	BI 6-20 P		5,1
2200	1550	BI 6-22 P ³⁾		5,6

Symbol	Conditions	Values	Units
I_D	$T_a = 45$ °C, P5A/100, natural cooling $T_a = 45$ °C, chassis ²⁾	12,3 9,3	A A
I_{DCL}	$T_a = 45$ °C, P5A/100, natural cooling $T_a = 45$ °C, chassis ²⁾ $T_a = 45$ °C, isolated ¹⁾	9,6 7,5 2,8	A A A
I_{FSM}	$T_{vj} = 25$ °C, 10 ms $T_{vj} = 150$ °C, 10 ms	200 165	A A
i^2t	$T_{vj} = 25$ °C, 8,3 ... 10 ms $T_{vj} = 150$ °C, 8,3 ... 10 ms	200 136	A ² s A ² s
V_F $V_{(TO)}$ r_T I_{RD} I_{RD} t_{rr} f_G	$T_{vj} = 25$ °C, $I_F = 80$ A $T_{vj} = 150$ °C $T_{vj} = 150$ °C $T_{vj} = 25$ °C, $V_{RD} = V_{RRM}$ $T_{vj} = 150$ °C, $V_{RD} = V_{RRM}$ $T_{vj} = 25$ °C	max. 2,65 max. 0,8 max. 24 50 5 10 2000	V V m Ω μ A mA μ s Hz
$R_{th(j-a)}$ $R_{th(i-c)}$ $R_{th(c-s)}$ T_{vj} T_{stg}	isolated ¹⁾ chassis ²⁾ total (from chips to bridge back side) total -40...+150 -55...+150	21,2 5,2 2,2 0,15 -40...+150 -55...+150	K/W K/W K/W K/W °C °C
V_{isol} M_s M_t a w	a.c. 50...60 Hz; r.m.s.; 1s / 1 min. torque for mounting (M4 screw) approx.	3000 / 2500 2 $\pm$ 15% 12	V~ Nm Nm m/s ² g
Fu			A
Case	40 x 21,5 x 6,4 mm plus 15 mm leads	BI P	



B (B2U)





Case BI P

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