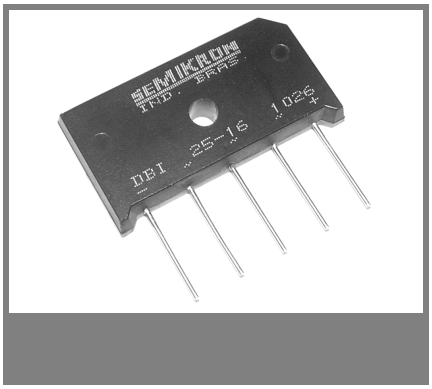
DBI 25 P



Power Bridge Rectifiers

DBI 25 P

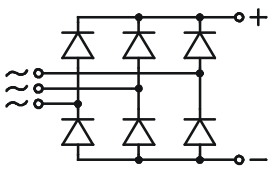
Features

- 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 2200 V
- High surge current
- Plastic material is UL 94V-0 classified
- Standard packing: 54 pieces box

Typical Applications*

- 3 phase rectifier for power supplies
- Input rectifier for variable frequency drives
- Rectifier for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network: RC: 100 nF, 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) Recommended V_{VRMS} values: $V_{VRMS} = V_{RRM} / 2,83$



DB (B6U)

V_{RSM}, V_{RRM} V	V_{VRMS} V	I_D = 27 A (T_c = 32 °C) Types	C_{max} µF	R_{min} Ω
400	280	DBI 25-04 P		0,3
800	560	DBI 25-08 P		0,7
1200	800	DBI 25-12 P		1
1600	1000	DBI 25-16 P		1,5
1800	1100	DBI 25-18 P		1,8
2200	1250	DBI 25-22 P		2,2

Symbol	Conditions	Values	Units
I_D	T_a = 44 °C, P5A/100, natural cooling	17	A
	T_a = 45 °C, chassis[2]	12	A
I_{DCL}	T_a = 44 °C, P5A/100, natural cooling	17	A
	T_a = 45 °C, chassis[2]	12	A
	T_a = 45 °C, isolated[1]	2,9	A
I_{FSM}	T_{vj} = 25 °C, 10 ms	370	A
	T_{vj} = 150 °C, 10 ms	310	A
i^2t	T_{vj} = 25 °C, 8,3 ... 10 ms	680	A^2s
	T_{vj} = 150 °C, 8,3 ... 10 ms	480	A^2s
V_F	T_{vj} = 25°C, I_F = 150 A	max. 1,95	V
$V_{(TO)}$	T_{vj} = 150°C	max. 0,85	V
r_T	T_{vj} = 150°C	max. 9	mΩ
I_{RD}	T_{vj} = 25°C, V_{RD} = V_{RRM}	50	µA
I_{RD}	T_{vj} = 150°C, V_{RD} = V_{RRM}	5	mA
t_{rr}	T_{vj} = 25°C	10	µs
f_G		2000	Hz
$R_{th(j-a)}$	isolated[1]	20,5	K/W
	chassis[2]	4,5	K/W
$R_{th(j-c)}$	total (from chips to bridge back side)	1,7	K/W
$R_{th(c-s)}$	total	0,15	K/W
T_{vj}		-40...+150	°C
T_{stg}		-55...+150	°C
V_{isol}	a.c. 50...60 Hz; r.m.s.; 1s / 1 min.	3000 / 2500	V~
M_s	torque for mounting (M4 screw)	2 ± 15%	Nm
M_t			Nm
a			m/s^2
w	approx.	13	g
Fu			A
Case	40 x 21,5 x 6,4 mm plus 15 mm leads	DBI P	

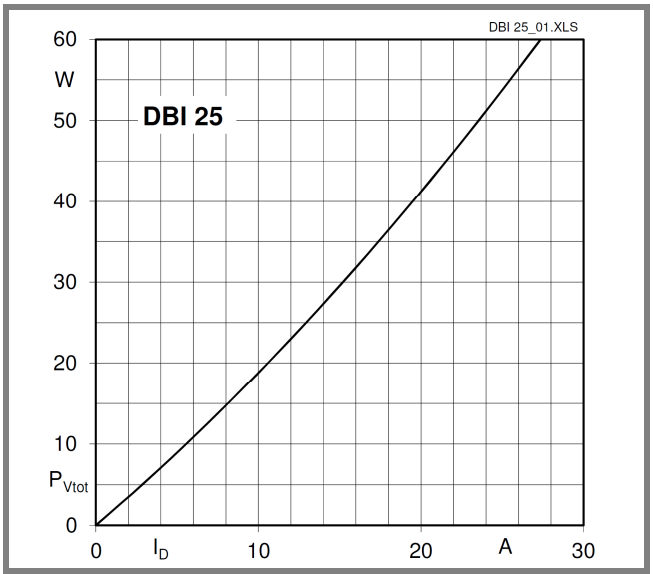


Fig. 3L Power dissipation vs. output current

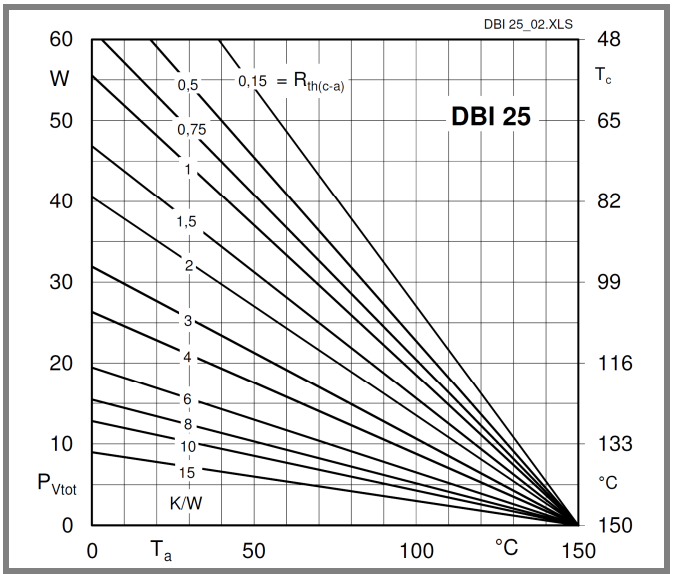


Fig. 3R Power dissipation vs. case temperature

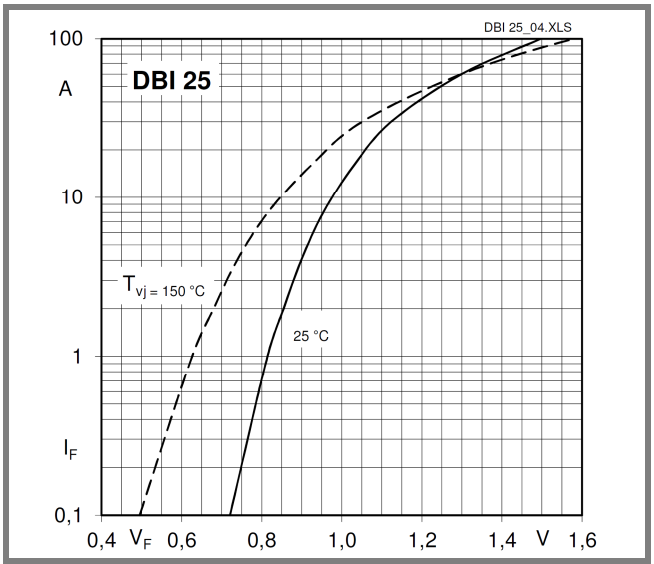
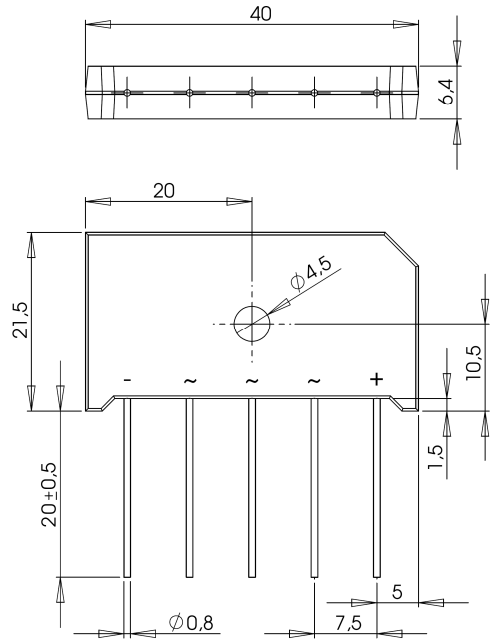


Fig. 9 Forward characteristics of a diode arm

Dimensions in mm



Case DBI P

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