# **BI 25**

*	HEALER AND A

### **Power Bridge Rectifiers**

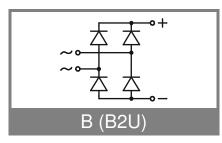
### **BI 25**

#### Features

- Isolated metal case 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 1800 V
- High surge current
- 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: 0.1  $\mu$ F, 50  $\Omega$  (P<sub>R</sub> = 1 W)
- Mounted on a 50 x 75 mm p.c.b. Mounted on a painted metal sheet of min.
- 1) 2)
- 250 x 250 x 1 mm 3) Recommended  $V_{VRMS}$  values:  $V_{VRMS} = V_{RRM} / 2,83$



V <sub>RSM</sub> , V <sub>RRM</sub>	V <sub>VRMS</sub> V I <sub>D</sub> = 25 A (T <sub>c</sub> = 26 °C) Types		;)	C <sub>max</sub> μF	${\sf R}_{\sf min}$	
400 800 1200 1600 1800	280 560 800 1000 1250	BI 25-04 P BI 25-08 P BI 25-12 P BI 25-16 P BI 25-18 P			0,75 1,8 2,7 3,9 4,4	
Symbol Conditions Values Units						
I <sub>D</sub> I <sub>DCL</sub>	T <sub>a</sub> = 45 °C, P5A/100, natural cooling T <sub>a</sub> = 45 °C, chassis <sup>2)</sup> T <sub>a</sub> = 45 °C, P5A/100, natural cooling T <sub>a</sub> = 45 °C, chassis <sup>2)</sup> T <sub>a</sub> = 45 °C, chassis <sup>2)</sup> T <sub>a</sub> = 45 °C, isolated <sup>1)</sup>		V	16,5 11 14 9,5 2,7		
I <sub>FSM</sub> i <sup>2</sup> t	$T_{vi} = 25 \text{ °C}, 10 \text{ f}$ $T_{vi} = 150 \text{ °C}, 10 \text{ f}$ $T_{vj} = 25 \text{ °C}, 8,3 \text{ f}$ $T_{vj} = 150 \text{ °C}, 8,3 \text{ f}$		370 310 680 480			
V <sub>F</sub> V <sub>(TO)</sub> r <sub>T</sub> I <sub>RD</sub> I <sub>RD</sub> t <sub>rr</sub> f <sub>G</sub>	$\begin{array}{l} T_{vi} = 25^{\circ}C, \ I_{F} = 12,5 \ A \\ T_{vi} = 150^{\circ}C \\ T_{vj} = 150^{\circ}C \\ T_{vj} = 25^{\circ}C, \ V_{RD} = V_{RRM} \\ T_{vi} = ^{\circ}C, \ V_{RD} = V_{RRM} \geq V \\ T_{vj} = 150^{\circ}C, \ V_{RD} = V_{RRM} \\ T_{vj} = ^{\circ}C, \ V_{RD} = V_{RRM} \\ T_{vj} = ^{\circ}C, \ V_{RD} = V_{RRM} \geq V \\ T_{vj} = 25^{\circ}C \end{array}$		max. 1,05 max. 0,85 max. 9 50 5 10 2000		V V μA μA mA Hs Hz	
$\begin{array}{c} R_{th(j\text{-}a)} \\ R_{th(j\text{-}c)} \\ R_{th(c\text{-}s)} \\ T_{vi} \\ T_{stg} \end{array}$	isolated <sup>1)</sup> chassis <sup>2)</sup> total (from chips to bridge back side) total		-40	21 5 2,2 0,15 -40+150 -55+130		
V <sub>isol</sub> M <sub>s</sub> M <sub>t</sub> a w	a.c. 5060 Hz; torque for mour approx.		0 / 2500 ± 15% 20	V~ Nm Nm m/s <sup>2</sup> g		
Fu					А	
Case	40 x 20 x 10 m	m plus 20 mm leads		BI		

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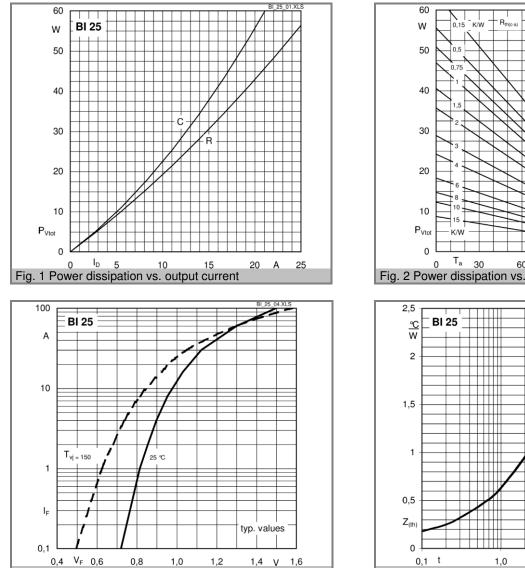
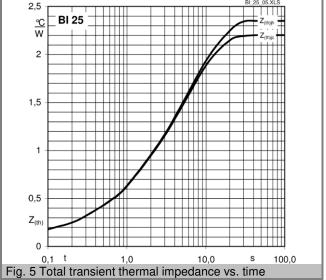


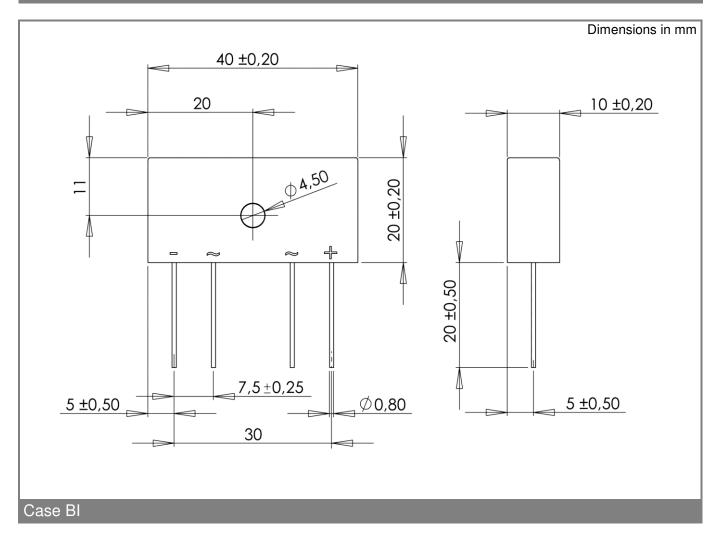
Fig. 4 Forward characteristics of a diode arm (typical)

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