



## Inline bridge

## One-Phase Si-Bridge Rectifiers

BI 6-005 ... BI 6-16

**Forward Current: 6 A**

**Reverse Voltage: 50 to 1600 V**

Publish Data

### Features

- Max. solder temperature: 260 °C, max. 5s
- UL recognized, file No. E63532
- $V_{ISO} > 2500$  V
- In-line isolated metal case with wired connectors
- Blocking voltage to 1600V
- High surge current
- Input rectifier for variable frequency drivers
- Rectifier for DC motor field supplies
- Battery charger
- Recommended snubber network : RC 50Ω, 0.1μF

### Mechanical Data

- Metal case, dimensions: 40 x 20 x 10 mm
- Weight approx. 35
- Terminals: plated terminals solderable per IEC 68-2-20
- Admissible torque for mounting (M 4): 2 (± 10 %) N
- Standard packing : bulk
- Heat sink mouting not on the marking side

Type	Alternating input voltage $V_{RMS}$ V	Repetitive peak reverse voltage $V_{RRM}$ V
BI 6-005	35	50
BI 6-01	70	100
BI 6-02	140	200
BI 6-04	280	400
BI 6-06	420	600
BI 6-08	560	800
BI 6-10	700	1000
BI 6-12	800	1200
BI 6-14	900	1400
BI 6-16	1000	1600

Absolute Maximum Ratings $T_c = 25$ °C unless otherwise specified			
Symbol	Conditions	Values	Units
$I_{FRM}$	Repetitive peak forward current; $f > 15$ Hz <sup>1)</sup>	30	A
$I^2t$	Rating for fusing, $t < 10$ ms	60	A <sup>2</sup> s
$I_{FSM}$	Peak forward surge current, 50 Hz half sine-wave $T_A = 25$ °C	125	A
$I_{FAV}$	Max. averaged fwd. current, R-load, $T_A = 50$ °C <sup>1)</sup>	2,0	A
$I_{FAV}$	Max. averaged fwd. current, C-load, $T_A = 50$ °C <sup>1)</sup>	1,6	A
$I_{FAV}$	Max. current with cooling fin, R-load, $T_c = 100$ °C <sup>2)</sup>	6	A
$I_{FAV}$	Max. current with cooling fin, C-load, $T_c = 100$ °C <sup>2)</sup>	4,8	A
$R_{thA}$	Thermal resistance junction to ambient <sup>1)</sup>	8	K/W
$R_{thC}$	Thermal resistance junction to case <sup>1)</sup>	4,1	K/W
$T_j$	Operating junction temperature	- 50 ... + 150 °C	°C
$T_s$	Storage temperature	- 50 ... + 150 °C	°C

Characteristics $T_c = 25$ °C unless otherwise specified			
Symbol	Conditions	Values	Units
$V_F$	Maximum forward. voltage, $T_j = 25$ °C; $I_F = 3$ A	1,1	V
$I_R$	Maximum Leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$	10	μA
$C_j$	Typical junction capacitance per leg at V, MHz		pF



