



6 AMP FAST RECOVERY BRIDGE RECTIFIERS

FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 90 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications
- Fast switching for high efficiency

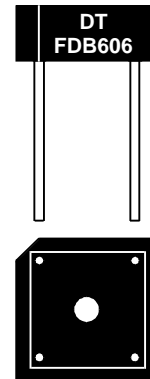
- **UL RECOGNIZED - FILE #E124962**

MECHANICAL DATA

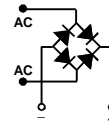
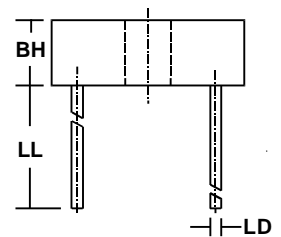
- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Round silver plated copper pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on side of case; positive lead at bevelled corner
- Mounting Position: Any. Through hole provided for #6 screw
- Weight: 0.11 Ounces (3.36 Grams)

MECHANICAL SPECIFICATION

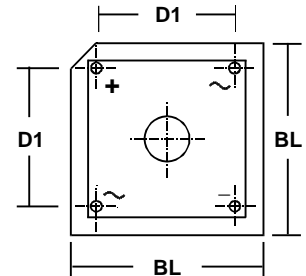
ACTUAL SIZE OF FDB PACKAGE



SERIES FDB600 - FDB610



| SYM | MILLIMETERS | | INCHES | |
|-----|-------------|------|--------|-------|
| | MIN | MAX | MIN | MAX |
| BL | 14.7 | 15.7 | 0.58 | 0.62 |
| BH | 5.8 | 6.9 | 0.23 | 0.27 |
| D1 | 10.3 | 11.3 | 0.405 | 0.445 |
| LL | 19.0 | n/a | 0.75 | n/a |
| LD | 1.0 | 1.1 | 0.039 | 0.042 |



MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive loads, derate current by 20%.

| PARAMETER (TEST CONDITIONS) | SYMBOL | RATINGS | | | | | | | | UNITS |
|---|-----------------------------------|-------------|------------|------------|------------|------------|------------|------------|-------|--------------------------|
| Series Number | | FDB 600 | FDB 601 | FDB 602 | FDB 604 | FDB 606 | FDB 608 | FDB 610 | | |
| Maximum DC Blocking Voltage | V _{RM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS | |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | | |
| Maximum Peak Recurrent Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | | |
| Average Forward Rectified Current @ T _c = 50 °C | I _O | 6 | | | | | | | | AMPS |
| Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load) | I _{FSM} | 90 | | | | | | | | |
| Maximum Forward Voltage (Per bridge Element) at 3 Amps DC | V _{FM} | 1.3 | | | | | | | | VOLTS |
| Maximum Average DC Reverse Current At Rated DC Blocking Voltage (Per Bridge Element-Note 2) | I _{RM} | 10 1 | | | | | | | | μA mA |
| Maximum Reverse Recovery Time (Note 1) | T _{RR} | 200 | | | 300 | | 500 | | nS | |
| Thermal Energy (Rating for Fusing, t < 8.3 mS) | I ² t | 60 | | | | | | | | AMPS ² SEC |
| Typical Thermal Resistance, Junction to Case (Note 2) | R _{θJC} | 8 | | | | | | | | °C/W |
| Junction Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | | °C |

NOTES: (1) T_J=25°C, I_F=0.5A, I_R=1A, I_{RR}=0.25A
(2) Bridge mounted on 4.0" sq. x 0.11" thick (10.5cm sq. x 0.3cm) aluminum plate

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