



35 AMP SOFT RECOVERY FAST SWITCHING BRIDGE RECTIFIERS

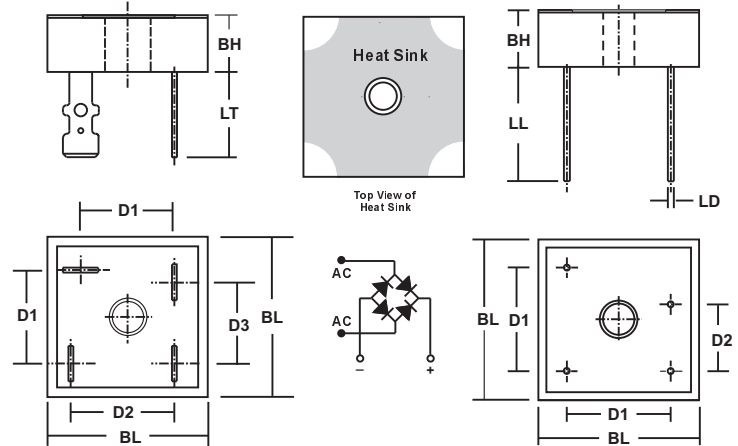
FEATURES

- TRUE SOFT RECOVERY CHARACTERISTIC WITH NO RINGING, SPIKES, or OVERSHOOT
- HIGH FREQUENCY: 250 kHz
FAST RECOVERY: 100nS - 150nS
- UNMATCHED PERFORMANCE - Minimal RFI/EMI
Reduced Power Losses, Extremely Cool Operation
Increased Power Supply Efficiency
- VOID FREE Vacuum Die Soldering For Maximum Mechanical Strength And Heat Dissipation
(Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- Proprietary Junction Passivation For Superior Reliability and Performance
- Wide Range of Applications: Motor Speed Controllers, Inverters, Converters, Choppers, Power Supplies, etc.
- **UL RECOGNIZED - FILE #E124962**
- **RoHS COMPLIANT**

MECHANICAL DATA

- Case: Case: Molded epoxy with integral heat sink
Epoxy carries a U/L Flammability rating of 94V-0
- Terminals: Round silver plated copper pins or fast-on terminals
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on side of case
- Mounting Position: Any. Through hole for #8 screw.
Max. mounting torque = 20 in-lb.
- Weight: Fast-on Terminals - 0.72 Ounces (20.3 Grams)
Wire Leads - 0.65 Ounces (18.3 Grams)

MECHANICAL SPECIFICATION



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
D1	15.7	16.7	0.62	0.66
D2	17.5	18.5	0.69	0.73
D3	13.5	14.5	0.53	0.57
LT	n/a	15.2	n/a	0.6

Use Suffix "T" For
FAST-ON TERMINALS

EXAMPLE P/N: DB3506P/T-S

SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
D1	17.5	18.5	0.69	0.73
D2	10.9	11.9	0.43	0.47
LL	20.6	n/a	0.81	n/a
LD	1.0	1.1	0.039	0.042

Use Suffix "W" For
WIRE LEADS

EXAMPLE P/N: DB3506P/W-S

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS					UNITS
		FDB 3500P-S	FDB 3501P-S	FDB 3502P-S	FDB 3504P-S	FDB 3506P-S	
Series Number							
Maximum DC Blocking Voltage	V _{RM}	50	100	200	400	600	VOLTS
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	400	600	
Average Forward Rectified Current, T _c = 50 °C	I _O	35					AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	400					
Maximum Forward Voltage, Per Diode, at 17.5 Amps DC	V _{FM}	1.25					VOLTS
Maximum Average DC Reverse Current at Rated DC Blocking Voltage Per Diode	I _{RM}	1.0					μA
Maximum Reverse Recovery Time	T _{RR}	150 (Typ. 100)					nS
Typical Thermal Resistance, Junction to Case	R _{θJC}	1.2					°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150					°C

NOTES: (1) Bolt bridge on heat sink with #8 screw, using silicon thermal compound between bridge and mounting surface