Super Fast Recovery Bridge Rectifiers

Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package**: PB
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER		SYMBOL	UNIT	EPB3506
Device marking code				EPB3506
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	600
Maximum RMS Voltage		V_{RMS}	V	420
Maximum DC blocking Voltage		V_{DC}	V	600
Average rectified output current @60Hz sine wave, R-load,	With heatsink Tc =105	I_O	A	35.0
	Without heatsink Ta =25			3.5
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25		IF_{SM}	A	350
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25				700
Current squared time @1ms≤t≤8.3ms Tj=25 , Rating of per diode		I^2t	A^2s	508
Storage temperature		Tstg		-55 ~ +150
Junction temperature		Tj		-55 ~ +150
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2.5
Mounting torque @Recommend torque 5kg cm		Tor	kg cm	8

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EPB3506
Maximum reverse recovery time	T_{RR}	ns	I_F=0.5A,I_R=1.0A, I_{RR}=0.25A	50
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=17.5A	2.0
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Tj =25	5
			Tj =125	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	175

■Thermal Characteristics T_a=25 Unless otherwise specified

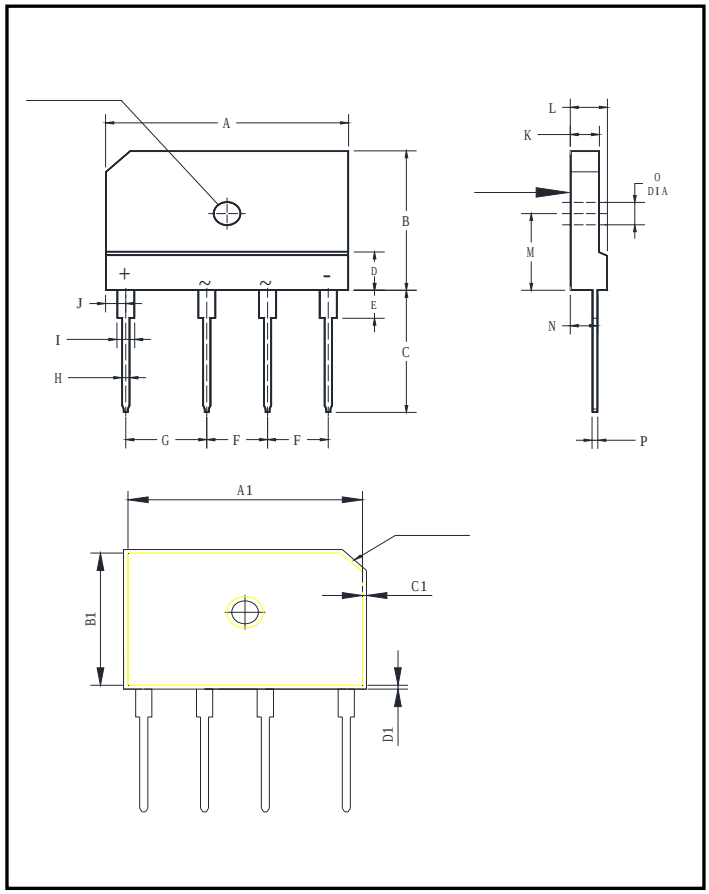
PARAMETER		SYMBOL	UNIT	EPB3506
Typical Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	/W	17.0
	Between junction and case, With heatsink	$R_{\theta J-C}$		0.8

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	

■ Outline Dimensions



PB		
Dim	**Min**	**Max**
A	29.7	30.3
B	19.7	20.3
C	17.0	18.0
D	4.8	5.8
E	3.8	4.2
F	7.3	7.7
G	9.8	10.2
H	0.9	1.1
I	2.0	2.4
J	2.3	2.7
K	3.4	3.8
L	4.4	4.8
M	10.8	11.2
N	3.1	3.7
O	3.1	3.4
P	0.6	0.8
A1	28.75	29.15
B1	18.75	19.15
C1	0.3	0.7
D1	0.3	0.7

Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fue rao ce _ s $ pue