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IN LINE BIG

Voltage	Current	
200 V to 600 V	5.0 A	

FEATURES

- UL recognition file number E320541
- Ideal for printed circuit board
- High case dielectric strength of 2500 Vrms
- High surge current capability
- Solder dip 260°C, 10s
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC



ROHS

MECHANICAL DATA

- Case: IN LINE BIG. Epoxy meets UL 94V-0 flammability rating.
- Polarity: As marked on body
- Mounting Torque: 5.5cm-kg (5 in.- lbs.)
- Terminals: Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test

TYPICAL APPLICATIONS

Used in ac-to-dc bridge full wave rectification for monitor, TV, printer, switching mode power supply, adapter, audio equipment, and home appliances applications.

Maximum Ratings and Electrical Characteristics at 25 °C

		D5.1XB20	D5.1XB30	D5.1XB60
Marking Code		D5.1XB20	D5.1XB30	D5.1XB60
V_{RRM}	Peak recurrent reverse voltage (V)	200	300	600
V _{RMS}	Maximum RMS Voltage (V)	140	210	420
I _{F(AV)}	Max. Average forward current	5.0 A at Tc: 100 °C (Note 1) 3.0 A at 25 °C (Note 2)		
I _{FSM}	8.3 ms. Peak Forward Surge Current (Jedec Method)	180 A		
V_{DIS}	Dielectric strength (terminals to case, AC 1 min.)	2500 V		
I ² t	I^2t value for fusing (t = <8.3 ms)	120 A ² sec		
Tj	Operating temperature range	-40 to +150 °C		
T _{stg}	Storage temperature range	-40 to +150 °C		

Electrical Characteristics at Tamb = 25 °C

V _F	Max. forward voltage drop per d	iode at I _F = 4.0 A I _F = 8.0 A	1.00 V 1.10 V	
I _R	Max. instantaneous reverse current at V _{RRM}		5 μΑ	
R _{th (j-c)}	Typical Thermal Resistance	unction-case	3.4 °C/W (Note 1)	
R _{th (j-a)}		unction-Ambient	22 °C/W (Note 2)	

Notes: 1. Unit case mounted on aluminum plate heatsink

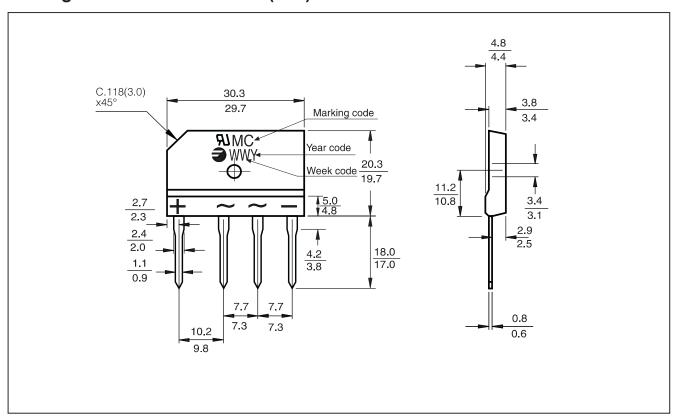
2. Units mounted on P.C.B. without heatsink



Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
D5.1XB60 TY	TY	PAPER TRAY	40	7

Package Outline Dimensions: (mm) IN LINE BIG





Ratings and Characteristics (Ta 25 °C unless otherwise noted)

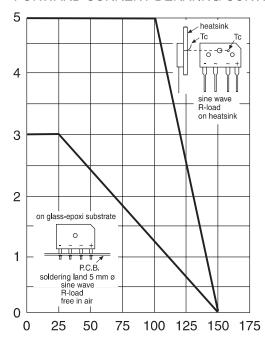
TYPICAL FORWARD CHARACTERISTIC

1.0 1.0 0.1 0.0 0.0 0.0 0.0 1.0 1.4

I_F, instantaneous forward current (A)

V_F, instantaneous forward voltage (V)

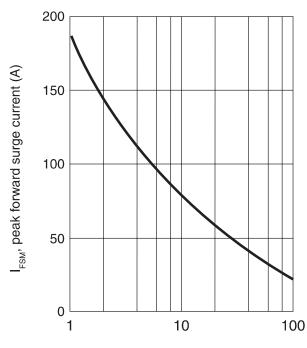
FORWARD CURRENT DERATING CURVE



Tamb, ambient temperature (°C)

MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

 $I_{\text{F (AV)}},$ average forward rectified current (A)



Number of cycles at 50 Hz.



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