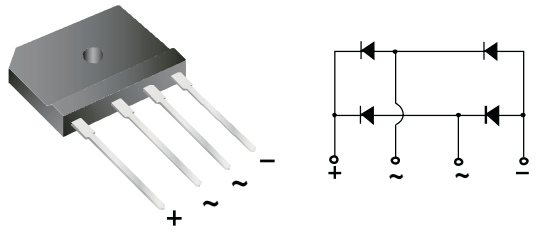
5.0 Amp. Glass Passivated Single Phase In Line Bridge Rectifier

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 260ºC, 10s
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC

RoHS COMPLIANT

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 ºC

		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^2t	I^2t value for fusing (t = <8.3 ms)	120 A^2sec		
T_j	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 diode 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 µA
$R_{th\ (j-c)}$	Typical Thermal Resistance Junction-case	3.4 °C/W (Note 1)
$R_{th\ (j-a)}$	Typical Thermal Resistance Junction-Ambient	22 °C/W (Note 2)

Notes: 1. Unit case mounted on aluminum plate heatsink
2. Units mounted on P.C.B. without heatsink

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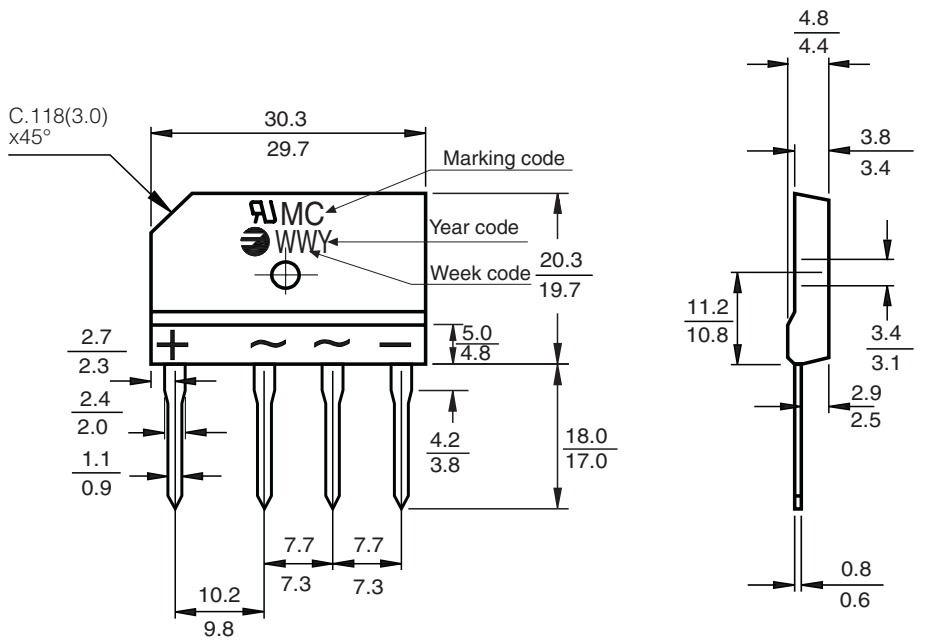
Ordering information

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



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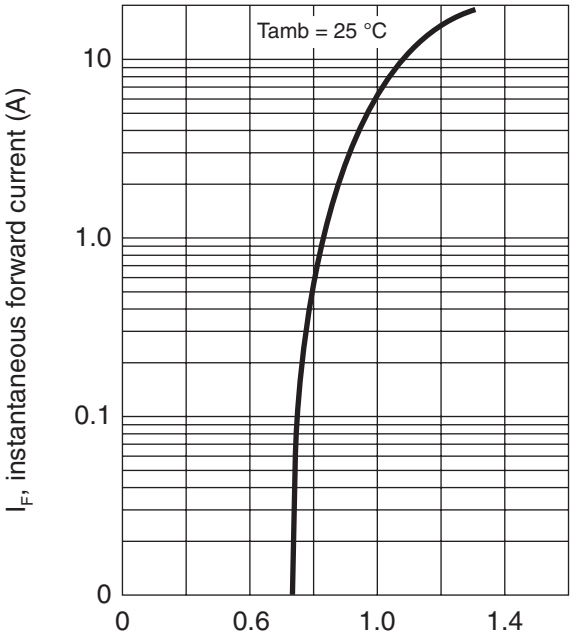
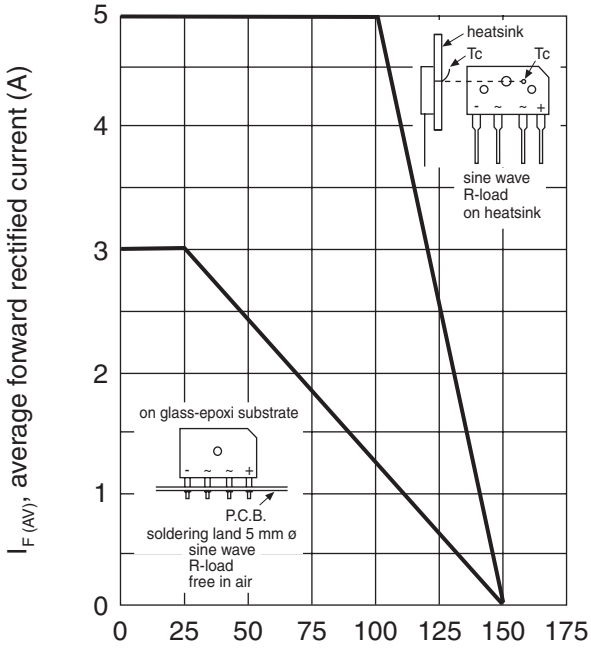
Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

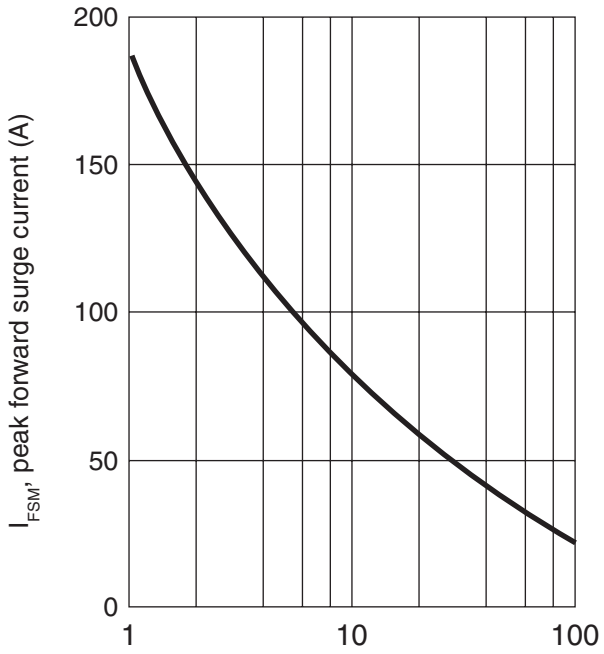
TYPICAL FORWARD CHARACTERISTIC



FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



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