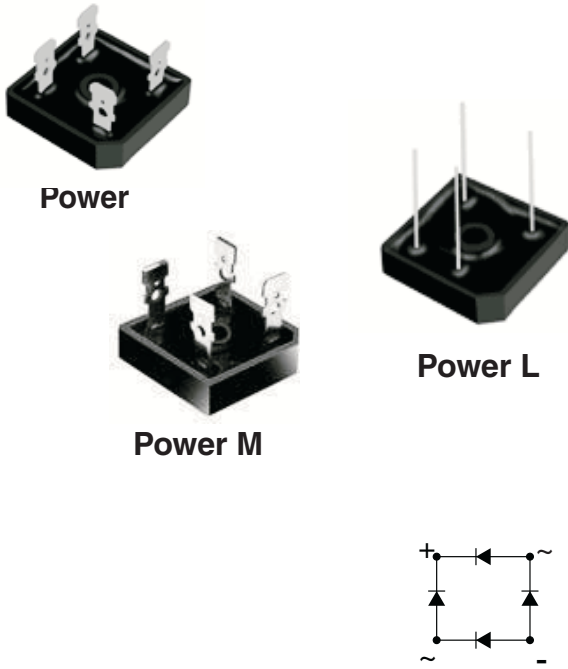



Glass Passivated Single-Phase Bridge Rectifier

<p>Power - Power M - Power L</p> 	<p>Voltage 50 V to 1000 V</p>	<p>Current 15-25-35-40-50 A</p>	
	<p>FEATURES</p> <ul style="list-style-type: none"> • High case dielectric strength • High forward surge current capability • UL recognition file number E320541 • Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting • Low thermal resistance • Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC • Solder dip 260°C, 40s • Typical I_R less than 0.3μA 		
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: Power, Power L, Power M. Epoxy meets UL 94V-0 flammability rating. • Polarity: As marked, positive lead by beveled corner. • Mounting Torque: 20 inches-lbs. max. • Terminals: Nickel plated on faston lugs or silver plated on wire leads, solderable per J-STD-002 and JESD22-B102. Suffix letter "L" added to indicate wire leads (e.g. FB1501L). Suffix letter Faston "M" (e.g. FB1501M). 		
	<p>TYPICAL APPLICATIONS</p> <p>Used in ac-to-dc bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications..</p>		

Maximun Ratings and Electrical Characteristics at 25°C

SYMBOL	PARAMETER	FB15-15L-15M, FB25-25L-25M, FB35-35L-35M, FB40-40M, FB50-50M						
		00	01	02	04	06	08	10
V_{RRM}	Peak Recurrent Reverse Voltage (V)	50	100	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	35	70	140	280	420	560	700
V_R	Recommended Input Voltage (V)	20	40	80	125	250	380	500
I_F (AV)	Max. Forward Current R-load: At T case = 55 °C	FB15	15 A					
		FB25	25 A					
		FB35	35 A					
		FB40	40 A					
		FB50	50 A					
	At T case = 90 °C	FB15	10 A					
		FB25	17 A					
		FB35	20 A					
		FB40	25 A					
		FB50	35 A					
	With Al Square Chassis (200 cm ² x 3 mm.) Tamb = 45 °C	FB15	8 A					
		FB25	10 A					
FB35		12 A						
FB40		14 A						
FB50		16 A						

Glass Passivated Single-Phase Bridge Rectifier
Maximum Ratings and Electrical Characteristics at 25°C

SYMBOL	PARAMETER	FB15-15L-15M, FB25-25L-25M, FB35-35L-35M, FB40-40M, FB50-50M						
		00	01	02	04	06	08	10
I_{FRM}	Recurrent peak forward current	FB15	60 A					
		FB25	75 A					
		FB35	75 A					
		FB40	100 A					
		FB50	100 A					
I_{FSM}	10 ms. peak forward surge current	FB15	300 A					
		FB25	300 A					
		FB35	400 A					
		FB40	400 A					
		FB50	400 A					
I^2t	I^2t value for fusing (t = 10 ms)	FB15	450 A ² sec					
		FB25	450 A ² sec					
		FB35	800 A ² sec					
		FB40	1000 A ² sec					
		FB50	1250 A ² sec					
T_j	Operating Temperature Range	-55 to + 150° C						
T_{stg}	Storage Temperature Range	-55 to + 150° C						

Electrical Characteristics at Tamb = 25 °C

V_F	Max. forward voltage drop per element at	$I_F = 7.5$ A	FB15	1.1 V
		$I_F = 12.5$ A	FB25	1.1 V
		$I_F = 17.5$ A	FB35	1.1 V
		$I_F = 20$ A	FB40	1.1 V
		$I_F = 25$ A	FB50	1.1 V
I_R	Max. reverse current per element at V_{RRM}	5 μ A		
R_{thj-c}	Typical thermal resistance junction to case (Note 1)	1.5°C/W		
	Isolation voltage from case to leads	2500 Vac		

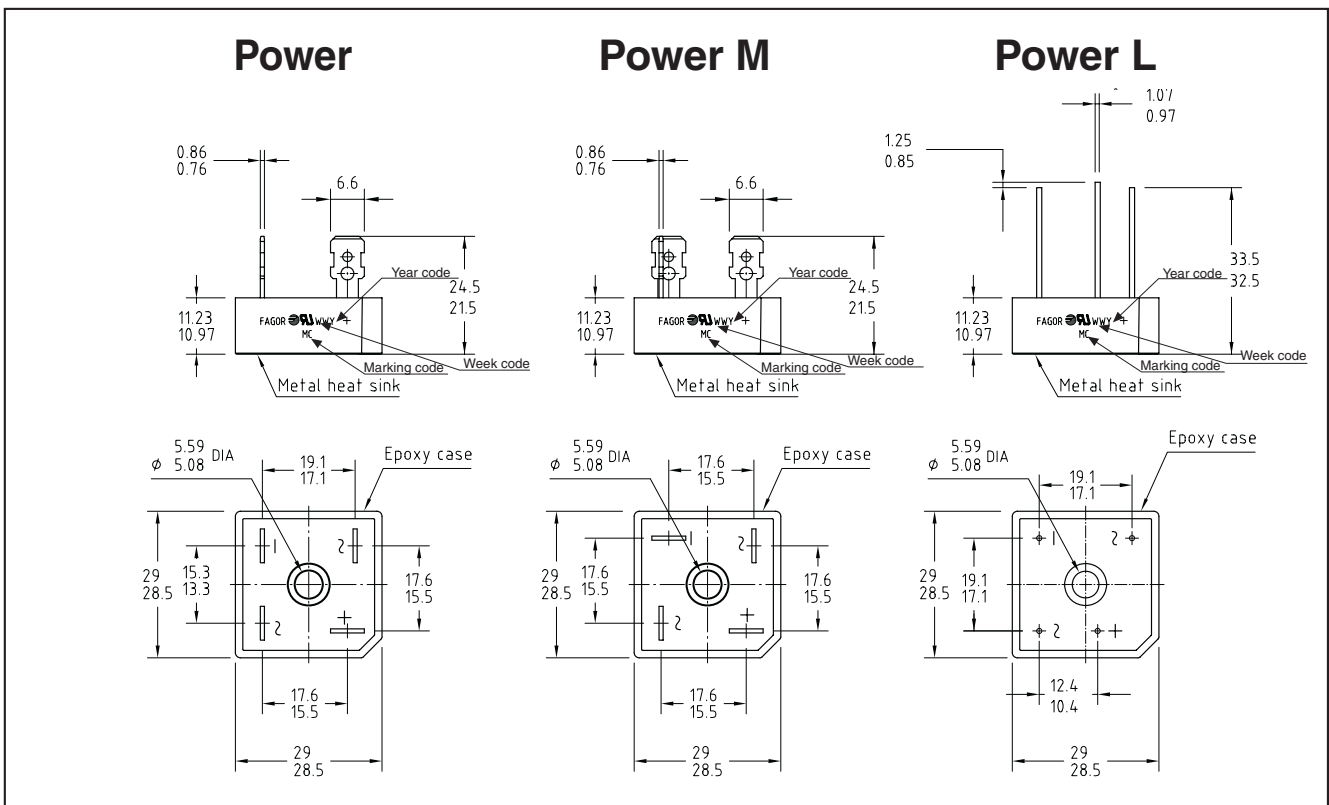
(Note 1) With heatsink

Glass Passivated Single-Phase Bridge Rectifier

Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FB2502	POWER	BOX POWER	70	15.80
FB2502M	POWER	BOX POWER M	100	15.80
FB2502L	POWER	BOX POWER L	40	13.80

Package Outline Dimensions: (mm) Power - Power M - Power L



Glass Passivated Single-Phase Bridge Rectifier

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

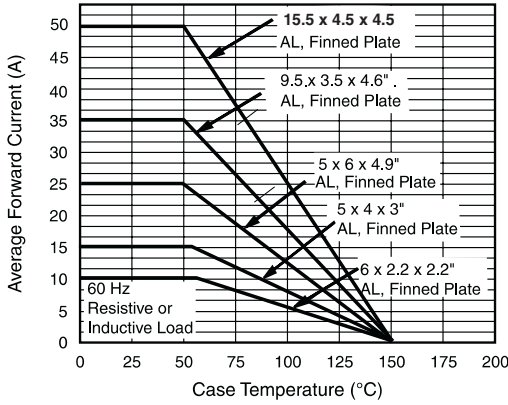


Fig. 1 - Maximum Output Rectified Current

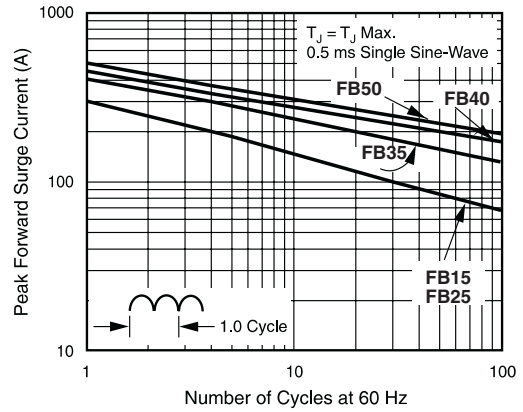


Fig. 4 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

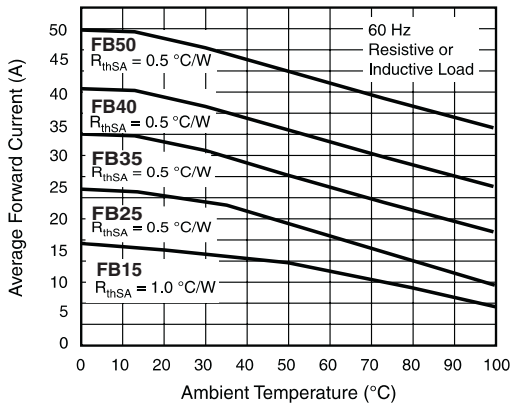


Fig. 2 - Maximum Output Rectified Current

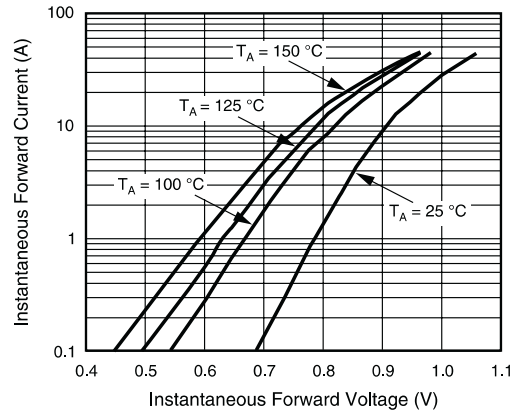


Fig. 5 - Typical Instantaneous Forward Characteristics Per Diode

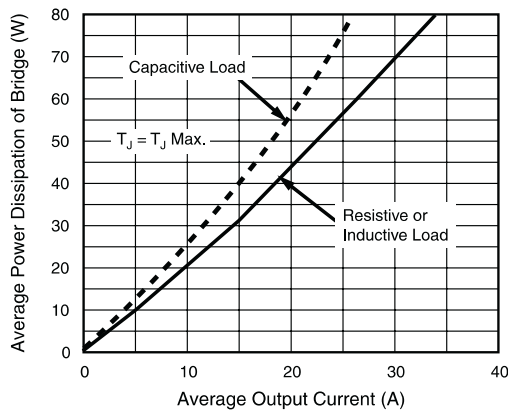


Fig. 3 - Maximum Power Dissipation

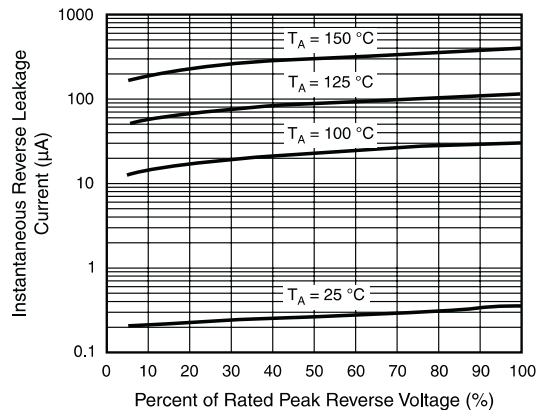


Fig. 6 - Typical Reverse Leakage Characteristics Per Diode

Glass Passivated Single-Phase Bridge Rectifier

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

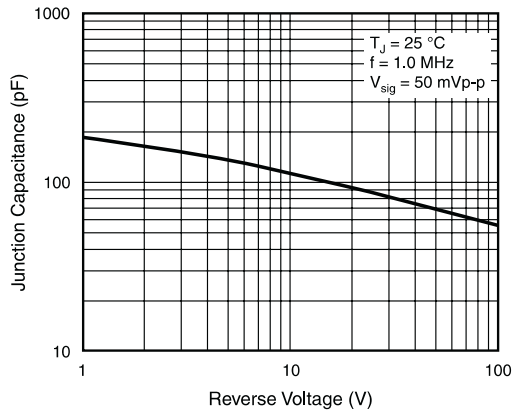


Fig. 7 - Typical Junction Capacitance Per Diode

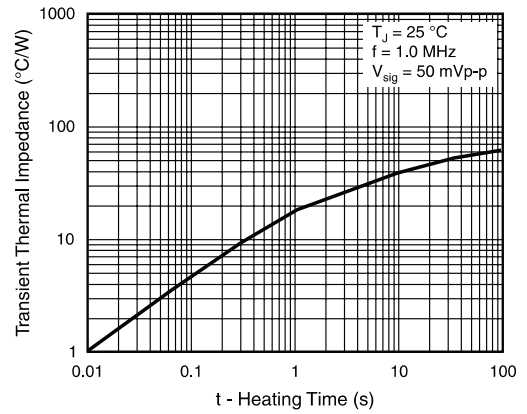


Fig. 8 - Typical Transient Thermal Impedance Per Diode

Glass Passivated Single-Phase Bridge Rectifier

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