

**cynergy<sup>3</sup>** components™

**series B-2T, B-2**

25-42.5Amp • SCR/Diode Modules

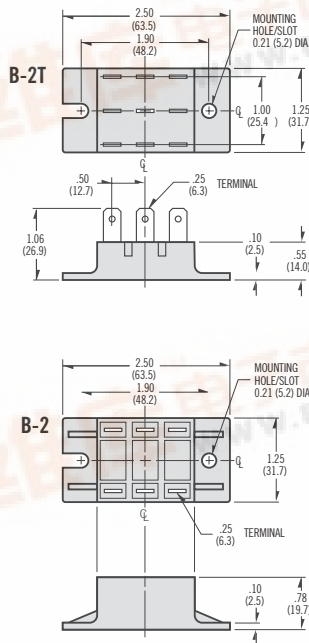


Modules come in eight standard circuits and are designed to control AC or DC variable voltage output up to 15KW. The package comes with standard .250 quick-connect terminals. All models have 2500 Vrms isolation and are UL recognized E72445. Optional isolation barriers are available.

- **Eight Standard Circuits**
- **AC or DC Variable Voltage Output to 15KW**

### Mechanical Dimensions

All dimensions are in inches (millimeters)



### Electrical Specifications

Electrical Specifications		B5	B6
I <sub>D</sub>	Maximum DC Output Current @ T <sub>c</sub> = 85°C (A)	25	42.5
V <sub>F</sub>	Maximum Voltage Drop @ Amps Peak	1.65V @ 25A	1.6V @ 42.5A
T <sub>J</sub>	Operating Junction Temperature Range	-40°C to +125°C	
di/dt	Critical Rate of Rise of On-State Current @ T <sub>J</sub> =125°C (A/μs)	100	
dv/dt	Critical Rate of Rise of Off-State Voltage	500	
V <sub>RMS</sub>	Repetitive Peak Reverse Voltage (AC Line Input Voltage)	400 (120Vac) 600 (240Vac) 800 (280Vac) 1200 (480Vac)	
I <sub>TSM</sub>	Maximum Non-Repetitive Surge Current (A) [ 1/2 Cycle, 60Hz]	250	600
I <sup>2</sup> T	Maximum I <sup>2</sup> T for Fusing (A <sup>2</sup> sec) [t=8.3ms]	260	1500
I <sub>GT</sub>	Maximum Required Gate Current to Trigger @ 25°C (mA)	60	80
V <sub>GT</sub>	Maximum Required Gate Voltage to Trigger @ 25°C (V)	2.5	3.0
P <sub>G(AV)</sub>	Average Gate Power	0.5W	
V <sub>GM</sub>	Maximum Peak Gate Voltage (Reverse)	5.0V	
R <sub>ΘJC</sub>	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.9°C/W	0.7°C/W
V <sub>ISOL</sub>	Isolation Voltage	2500 V <sub>RMS</sub>	

### Mechanical Specifications

Weight (Typical)	1.5 oz. (42.5g)
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ISO9001 CERTIFIED

Competitive part number cross-reference available at: [www.cynergy3.com](http://www.cynergy3.com)

### Approvals

UL - E72445

#### USA

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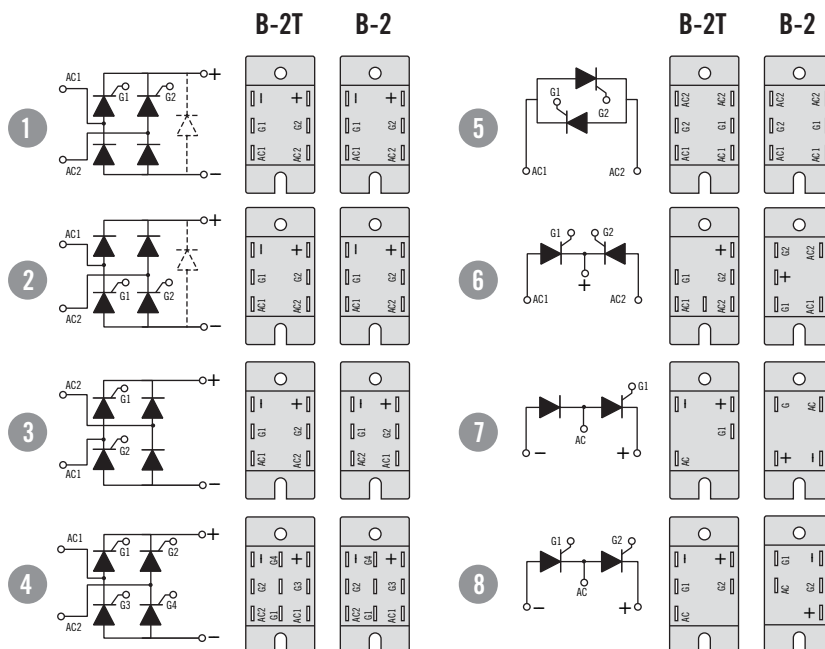




## Part Number Identification

Series	Current	Circuit Type	AC Line Voltage	Options*	Case Style
B	5 - 25 Amps	1 - 8	1 - 120 Vac	F - Free	-2T (Std)
	6 - 42.5 Amps	(see schematic diagrams)	2 - 240 Vac	Wheeling Diode	-2 with
			3 - 280 Vac	SE - External Suppressor	Isolation Barriers
			4 - 480 Vac		

Example: B512FSE-2T



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