



Circuit Modules provide ratings up to 42.5 amps in a low profile package designed for printed circuit board connections. Available in three standard bridge circuits and an AC switch version, all models have 2500 Vrms isolation and are UL recognized E72445. Mounting clip available, order part no. LMC-1.

- **Low Profile**
- **Designed for PCB Connections**

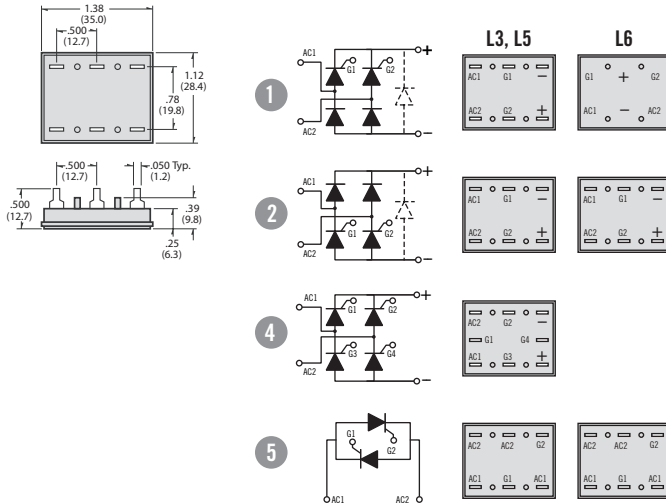
Part Number Identification

Series	Current	Circuit Type	AC Line Voltage	Options
L	3 - 15 Amps	1 - 5	1 - 120 Vac	F - Free
	5 - 25 Amps	(see schematic diagrams)	2 - 240 Vac	Wheeling
	6 - 42.5 Amps*		3 - 280 Vac	Diode
			4 - 480 Vac	(Circuits 1, 2)

Example: L512F * 42.5 Amp Rating Not Available In Circuit 4

Mechanical Dimensions

All dimensions are in inches (millimeters)



Electrical Specifications

		RATINGS		
		L3	L5	L6
I_D	Maximum DC Output Current @ $T_c = 85^\circ\text{C}$ (A)	15	25	42.5
V_F	Maximum Voltage Drop @ Amps Peak	2.2V @ 15A	1.65V @ 25A	1.6V @ 42.5A
T_J	Operating Junction Temperature Range	-40°C to +125°C		
di/dt	Critical Rate of Rise of On-State Current @ $T_J=125^\circ\text{C}$ (A/ μs)	100		
dv/dt	Critical Rate of Rise of Off-State Voltage	500		
V_{RMS}	AC Line Input Voltage (Repetitive Peak Reverse Voltage)	120 (400 V_{RRM}) 240 (600 V_{RRM}) 280 (800 V_{RRM}) 480 (1200 V_{RRM})		
I_{TSM}	Maximum Non-Repetitive Surge Current (A) [$1/2$ Cycle, 60Hz]	225	300	600
I^2T	Maximum I^2T for Fusing ($A^2\text{sec}$) [$t=8.3\text{ms}$]	210	375	1500
I_{GT}	Maximum Required Gate Current to Trigger @ 25°C (mA)	60	60	80
V_{GT}	Maximum Required Gate Voltage to Trigger @ 25°C (V)	2.5	2.5	3.0
$P_{G(AV)}$	Average Gate Power	0.5W		
V_{GM}	Maximum Peak Gate Voltage (Reverse)	5.0V		
$R_{\theta JC}$	Maximum Thermal Resistance Junction to Ceramic Base per Chip	1.25°C/W	0.9°C/W	0.7°C/W
V_{ISOL}	Isolation Voltage	2500 V_{RMS}		

Mechanical Specifications

Weight (Typical)	.5 oz. (14.4 g)
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ISO9001 CERTIFIED

Competitive part number cross-reference available at: www.cynergy3.com

Approvals

UL - E72445

USA

Sales & Tech Support (866) 258-5057
 Email: sales@cynergy3.com
 Cynergy3 Components
 2320 Paseo de las Americas, Suite 104
 San Diego, CA 92154

EUROPE - UK

Telephone +44 (0) 1202 897969
 Fax +44 (0) 1202 891918
 Email: sales@cynergy3.com
 Cynergy3 Components Ltd.
 7 Cobham Road
 Ferndown Industrial Estate
 Wimborne, Dorset BH21 7PE

ASIA - Thailand

Telephone +66 (0)2 665 2517
 Fax +66 (0)2 665 2588
 Cynergy 3 Components, Asia
 18/8 Fico Place 12th Floor
 Soi Sukhumvit 21 (Asoke)
 Klongtoey Nua, Wattana
 Bangkok, Thailand 10110