

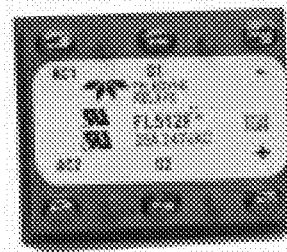
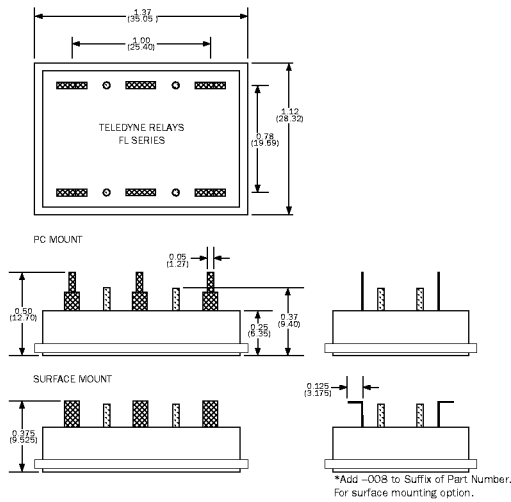
**PART NUMBERS**

Package Style	Output Current Designator	Circuit Type	AC Line Voltage	Options
FL Series	3 15 Amps	1 Common Cathode	1 120 Vac	F Free Wheeling Diode
Designator	5 25 Amps	Full Wave Bridge	2 240 Vac	-08 Surface Mount Terminals
	6 42.5 Amps	2 Common Anode	3 280 Vac	-012 EZ Mount™
		Full Wave Bridge	4 480 Vac	
		4 SCR Full Wave Bridge		
		5 AC Switch		

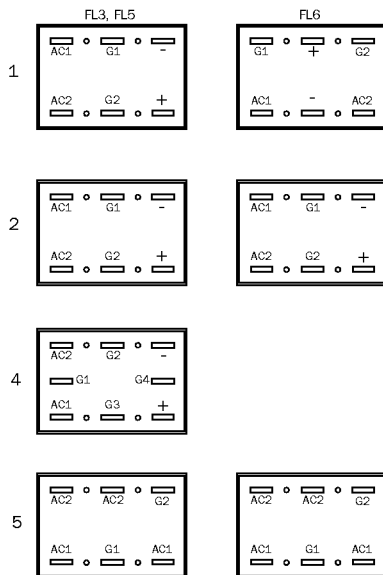
Add Options Suffix to Part Number, as desired, in order shown.

Part Number Example: **FL512F-012**

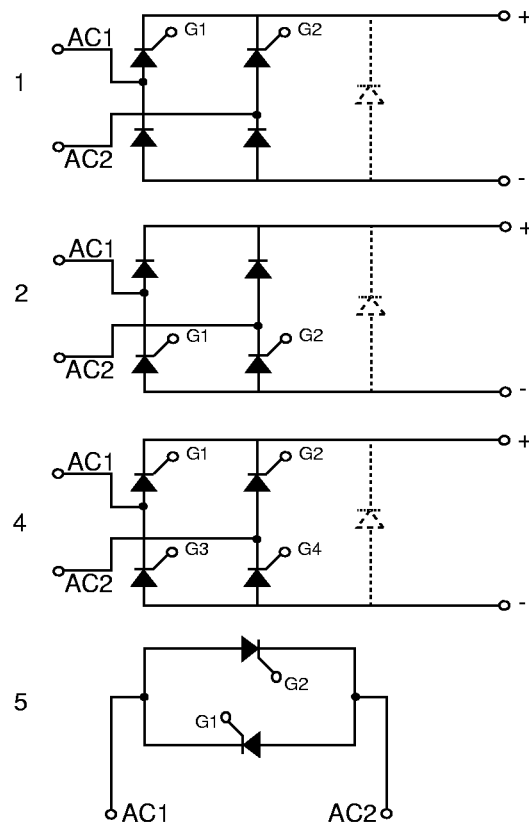
**MECHANICAL SPECIFICATION**



**SERIES L CIRCUITS**



**TERMINAL ASSIGNMENTS**



**ELECTRICAL SPECIFICATIONS**

SYMBOL SPECIFICATION		RATINGS		
		FL3	FL5	FL6
$I_D$	Maximum DC Output Current @Tc=85°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 @Tj=125°C(A/μs)	100		
dv/dt	Critical Rate of Rise of Off-State Voltage @Tj=125°C(V/μs)	500		
$V_{RMS}$	AC Line Input Voltage (Repetitive Peak Reverse Voltage)	—120 (400V <sub>RRM</sub> )—		
		—240 (600V <sub>RRM</sub> )—		
		—280 (800V <sub>RRM</sub> )—		
		—480 (1200V <sub>RRM</sub> )—		
$I_{TSM}$	Maximum Non-Repetitive Surge Current (A) [1/2 Cycle, 60Hz]	225	300	600
$I^2T$	Maximum I <sup>2</sup> T for Fusing (A <sup>2</sup> sec) [t=8.3ms]	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 <sub>RMS</sub>		

**FEATURES/BENEFITS**

- Circuit Modules provide ratings up to 42.5 amps.
- Thermal managed construction yields superior thermal impedance and power cycling capabilities.
- Available in four circuits.
- Exposed ceramic baseplate for reduced thermal resistance and best thermal performance.
- All models have 2500 Vrms isolation.
- UL Certified: File #E66830.

**TYPICAL APPLICATIONS**

- On/Off control of high power AC equipment.
- Motor control.
- Can be used singly or as a power control building blocks.