

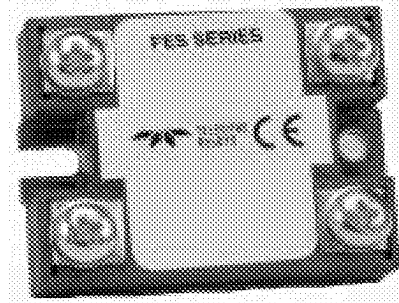
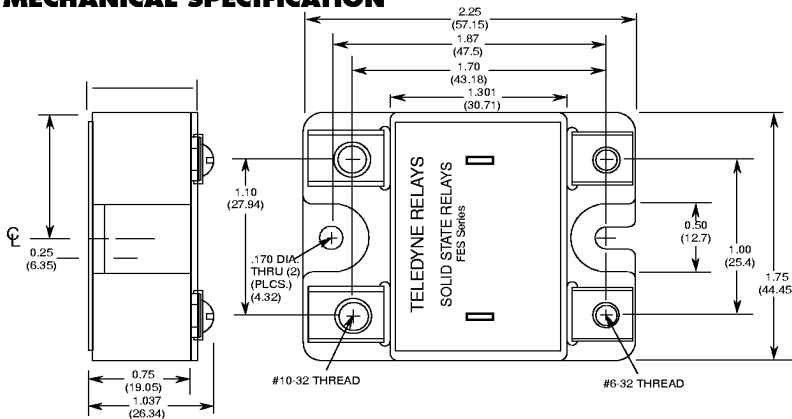
PART NUMBERS

Package Style	Output Current Designator	Circuit Type	AC Line Voltage	Options
FES Series	50 50 Amps	1 Common Cathode	1 120 Vac	F Free Wheeling Diode
Designator		Full Wave Bridge	2 240 Vac	-012 EZ Mount™
	100 100 Amps	2 Common Anode	3 280 Vac	
		Full Wave Bridge	4 380 Vac	
		3 SCR Full Wave Bridge	5 480 Vac	
		4 AC Switch		

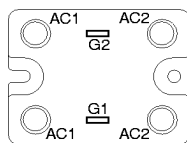
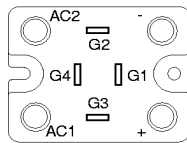
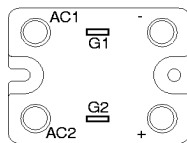
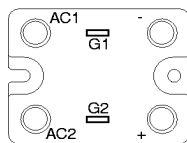
Add Options Suffix to Part Number, as desired, in order shown.

Part Number Example: **FES5011F-012**

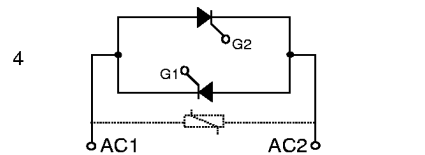
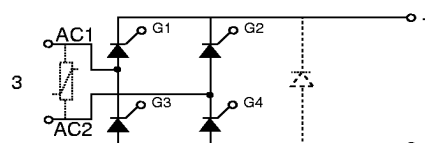
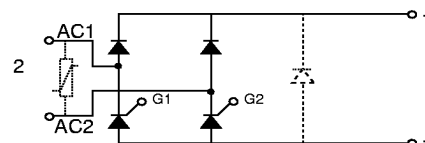
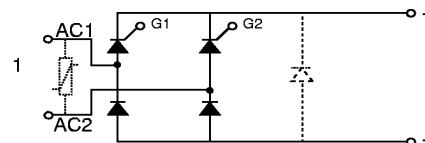
MECHANICAL SPECIFICATION



TERMINAL ASSIGNMENTS



SERIES ES CIRCUITS



ELECTRICAL SPECIFICATIONS

SYMBOL SPECIFICATION		FES	FES
I_D	Maximum DC Output Current @Tc=85°C(A)	50	100
V_F	Maximum Voltage Drop @Amps Peak	1.7V@50A	1.4V@100A
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 _{PRM})— —240 (600V _{PRM})— —280 (800V _{PRM})— —380 (100V _{PRM})— —480 (1200V _{PRM})—	
I_{TSM}	Maximum Non-Repetitive Surge Current (A) [1/2 Cycle, 60Hz]	600	1500
I^2T	Maximum I ² T for Fusing (A ² sec) [t=8.3ms]	1500	9350
I_{GT}	Maximum Required Gate Current to Trigger @25°C (mA)	150	
V_{GT}	Maximum Required Gate Voltage to Trigger @25°C (V)	3.0	
$P_{G(AV)}$	Average Gate Power	0.5W	
V_{GM}	Maximum Peak Gate Voltage (Reverse)	5.0V	
R_{eic}	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.7°C/W	0.36°C/W
V_{ISOL}	Isolation Voltage	2500 V _{RMS}	

FEATURES/BENEFITS

- Circuit Modules provide ratings up to 100 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.

