



Series F18

25-90 Amp • SCR/DIODE Modules

- Industry Standard Package and Circuits
- Power Control Building Blocks

Modules come in an industry standard package, offering nine circuits that can be used singly or as power control building blocks. All models feature highly efficient thermal management for greatly extended cycle life and are UL recognized (file no. E72445). Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

PART NUMBER IDENTIFICATION

Series Type	Current	Circuit Type	Voltage	Contact Factory
F18-Case style	27 - 25 Amps	(see schematic diagrams) Example: SD	400 - 120 Vac	For Higher Voltages
	42 - 40 Amps		600 - 240 Vac	
	57 - 55 Amps		1000 - 380 Vac	
	92 - 90 Amps		1200 - 480 Vac	
Example: F18925D1200			1400 - 530 Vac	

ELECTRICAL SPECIFICATIONS

SYMBOL	SPECIFICATION	RATINGS			
		27	42	57	92
I_D	Maximum DC Output Current ($T_c = 85^\circ\text{C}$)	25A	40A	55A	90A
V_F	Maximum Voltage Drop @Amps Peak	1.55V @75A	1.4V @42A	1.4V @165A	1.4V @270A
T_J	Operating Junction Temperature Range	-40°C to +125°C			
di/dt	Critical Rate of Rise of On-State Current @ $T_J=125^\circ\text{C}$	100A/μs	100A/μs	100A/μs	100A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage [V/μs]	500V/μs	500V/μs	500V/μs	500V/μs
V_{RRM}	Repetitive Peak Reverse Voltage (AC Line)	400 (120 Vac) 600 (240 Vac) 1000 (380 Vac) 1200 (480 Vac) 1400 (530 Vac)			
I_{TSM}	Maximum Non-Repetitive Surge Current ($1/2$ Cycle, 60Hz)	400A	1000A	1500A	1950A
I^2T	Maximum I^2T for Fusing ($t=8.3\text{ms}$) [A^2sec]	670	4150	9350	15800
I_{GT}	Maximum Required Gate Current to Trigger @25°C	150mA	150mA	150mA	150mA
V_{GT}	Maximum Required Gate Voltage to Trigger @25°C	3.0V	3.0V	3.0V	3.0V
$P_{G(AV)}$	Average Gate Power	0.5W	0.5W	0.5W	0.5W
V_{GM}	Maximum Peak Gate Voltage (Reverse)	5.0V	5.0V	5.0V	5.0V
$R_{\theta JC}$	Maximum Thermal Resistance Junction to Ceramic Base per Chip	0.4°C/W	0.28°C/W	0.25°C/W	0.14°C/W
V_{ISOL}	Isolation Voltage	2500 V_{RMS}	2500 V_{RMS}	2500 V_{RMS}	2500 V_{RMS}

MECHANICAL SPECIFICATIONS

Weight: (typical)

4.75 oz. (135g)

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For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280

Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com

WEB SITE: <http://www.crydom.com> FASTFAX Product Information: (888) 267-9191

UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,

Woolbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SJ

GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH,

Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: Vertrieb@crydom.com

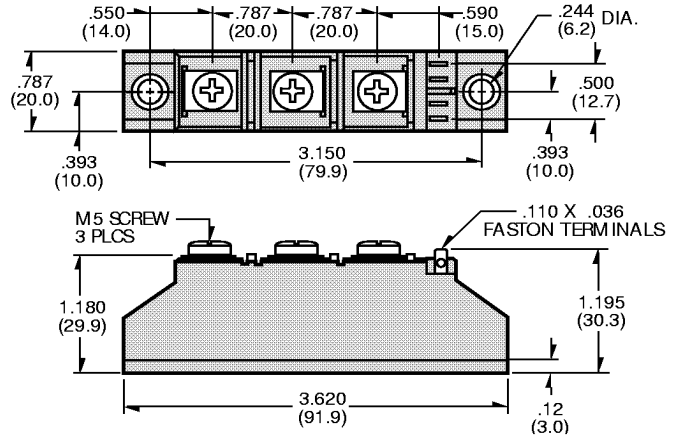




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MECHANICAL DIMENSIONS

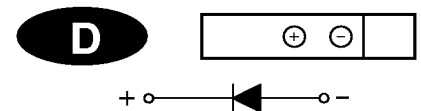
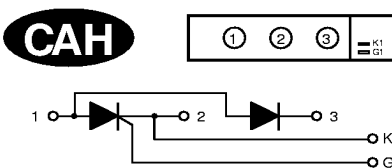
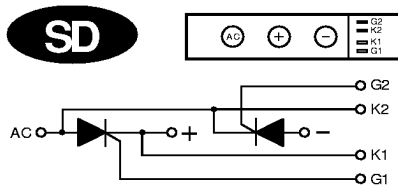
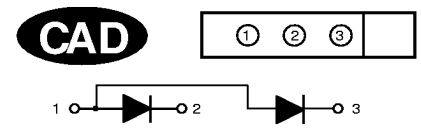
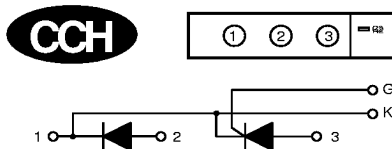
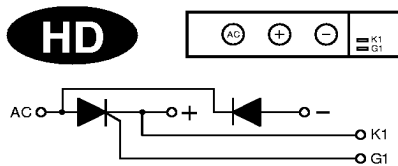
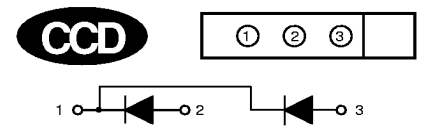
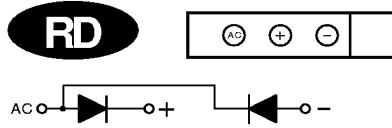
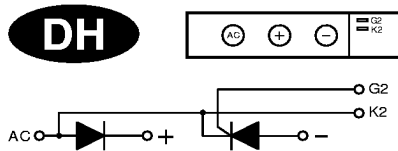
All dimensions are in inches (millimeters)

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Example: F18925D1200

SERIES F18 CIRCUITS



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