

CRYDOM

COMPANY

POWER MODULES

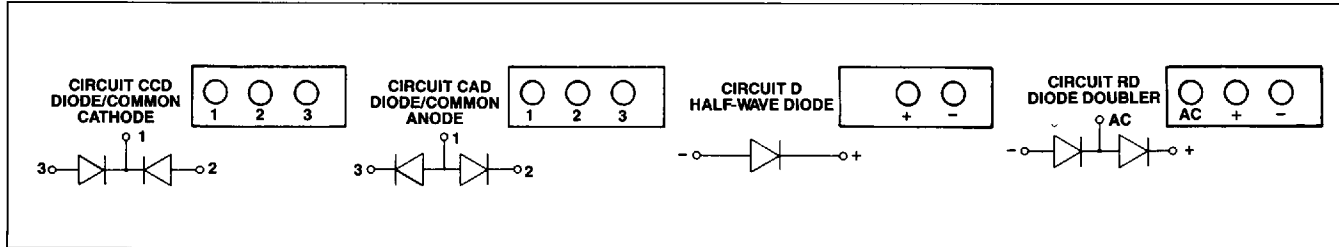
T-25-23

SERIES F18

40A-90A DIODE CIRCUITS

PARAMETER	SYM.	UNITS	SPECIFICATION LIMITS			CONDITIONS
Average Output Current per Device	I_o	A	40	55	90	$T_c = 85^\circ\text{C}$
One-Cycle Surge Current (Peak)	I_{TSM}	A	1000	1500	1950	$T_c = 125^\circ\text{C}$ Non-Repetitive
I_R for Fusing (Max.)	I_R	A ² S	4150	9340	15,800	
Leakage Current (Max.)	I_{RM}	mA	20			$T_j = 125^\circ\text{C}$ at Rated Voltage
Isolation Voltage (Min.)	V_{ISOL}	Vrms	2500			Any Terminal-to-Base
Junction Operating and Storage Temperature Range	$T_{J\&T_{STG}}$	$^\circ\text{C}$	- 40 to + 125			
Thermal Resistance (Case-to-Sink)	$R\theta_{cs}$	$^\circ\text{C/W}$	0.1			With Thermal Grease

Circuit Configurations (See Page 5 for Part Number Designation Code and Outline Dimensions)



SERIES EF

50A-150A DIODE CIRCUITS

EXAMPLE:

EF
PACKAGE

G
CURRENT
CODE

15
CIRCUIT
CODE

G
VOLTAGE
CODE

Part Numbering Designation Code

Package Code	Current Code (Amperes)*			Circuit Code		Voltage Code	
	Code	1 ϕ	3 ϕ	Code	Circuit	Code	Voltage
EF (Ceramic Base)	D	50	75	13	1 ϕ 4 diode	U	100
	E	75	100	14	3 ϕ 3 diode	A	200
	F	100	150	15	3 ϕ 6 diode	B	400
	G	125	150			D	800
						E	1000
						F	1200
						G	1400

Electrical Specifications (all tested @ 25 $^\circ\text{C}$ unless otherwise indicated)*

Parameter	Spec. Code:	D	E	F	G	Units
Surge (non-rep)	I_{TSM}	400	800	1000	2000	Amperes (one cycle; 60 Hz)
Fusing	I_R^2	650	2600	4100	16,600	A ² second (< 8.3 ms.)
Forward Drop (pk.)	V_{TM}	1.7 @ 70A	1.8 @ 100A	1.8 @ 150A	1.7 @ 150A	Volts, peak; to remain (pulse)
Leakage current	I_{DRM}, I_{RRM}	10.0	15.0	20.0	20.0	Milliamperes
Max. operating temp.	$T_j(\text{max.})$	125 $^\circ$				Centigrade
Min. operating temp.	$T_j(\text{min.})$	- 40 $^\circ$				Centigrade
Thermal resistance	$R\theta_{jc}$	0.5	0.4	0.25	0.15	$^\circ\text{C/W}$ chip to baseplate
Thermal resistance	$R\theta_{cs}$	.03				$^\circ\text{C/W}$ base to heatsink (with heatsink compound)

Recommended mounting Ms screw

Series EF Circuits Available (See Page A*2090 for Package Outline Dimensions)

