

Part Number: SCP-6115, Rev. -

## 3 Phase Full Wave Bridge Rectifier Module with Fuse

### Features

- Excellent Thermal Performance
- Compact package, Low Weight
- Isolated base plate: 1500V
- **Safety Feature: Built-in Fuse in each AC leg to fail open under fault**

### Maximum Ratings

(T<sub>c</sub>=25°C UNLESS OTHERWISE SPECIFIED)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Peak Inverse Voltage and DC Blocking Voltage Per Diode	BV <sub>CES</sub>	1100	-	-	V
Module Average Rectified Forward Current T <sub>C</sub> = 55 °C	I <sub>O</sub>	-	-	36	A
T <sub>C</sub> = 100 °C		-	-	26	A
T <sub>C</sub> = 125 °C		-	-	20	A
Peak Surge Current Per Diode Non-Repetitive t <sub>p</sub> = 8.3ms	I <sub>FSM</sub>	-	-	150	A
Peak Surge Current Per Diode Repetitive	I <sub>FRM</sub>	-	-	25	A
Fuse Rating on each leg Non-Repetitive t <sub>p</sub> = 8.3ms	I <sub>FUSE</sub>	-	400	-	A
Operating & Storage Temperature Range	T <sub>OP</sub> & T <sub>STG</sub>	- 55	-	175	°C

### Electrical Characteristics

(T<sub>c</sub>=25°C UNLESS OTHERWISE SPECIFIED)

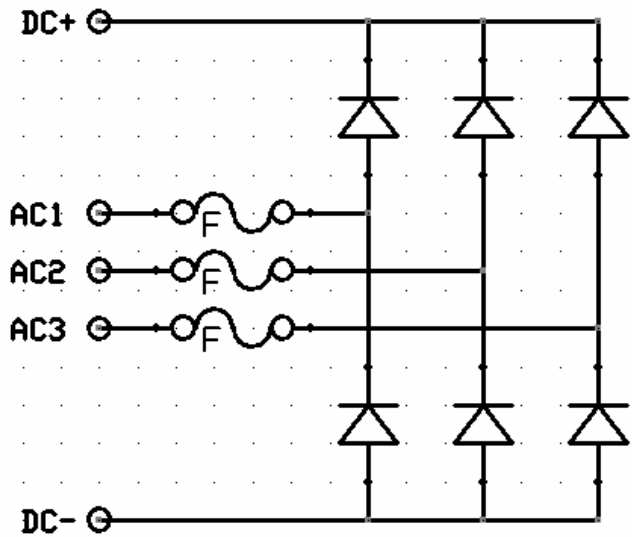
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage I <sub>F</sub> = 9A, t <sub>p</sub> = 300 μs Pulse	V <sub>F1</sub> V <sub>F2</sub>	-	1.40	1.70	V
T <sub>C</sub> = 25 °C		-	-	1.55	V
T <sub>C</sub> = 100 °C		-	-	-	-
Reverse Leakage Current V <sub>R</sub> = 1000V, t <sub>p</sub> = 300 μs Pulse	I <sub>R1</sub> I <sub>R2</sub>	-	-	2.0	μA
T <sub>C</sub> = 25 °C		-	-	50	μA
T <sub>C</sub> = 100 °C					
Breakdown Voltage I <sub>R</sub> = 10 μA, t <sub>p</sub> = 300 μs Pulse	B <sub>VR</sub>	1100	-	-	V
Reverse Recovery Time	t <sub>RR</sub>	-	0.6	1	μs
I <sub>F</sub> = 10A, di/dt = 10A / μs, V <sub>R</sub> = 100V					
Capacitance per Diode V <sub>R</sub> = 10V, f = 1 MHz	C <sub>T</sub>	-	80	200	pF

### Package Characteristics

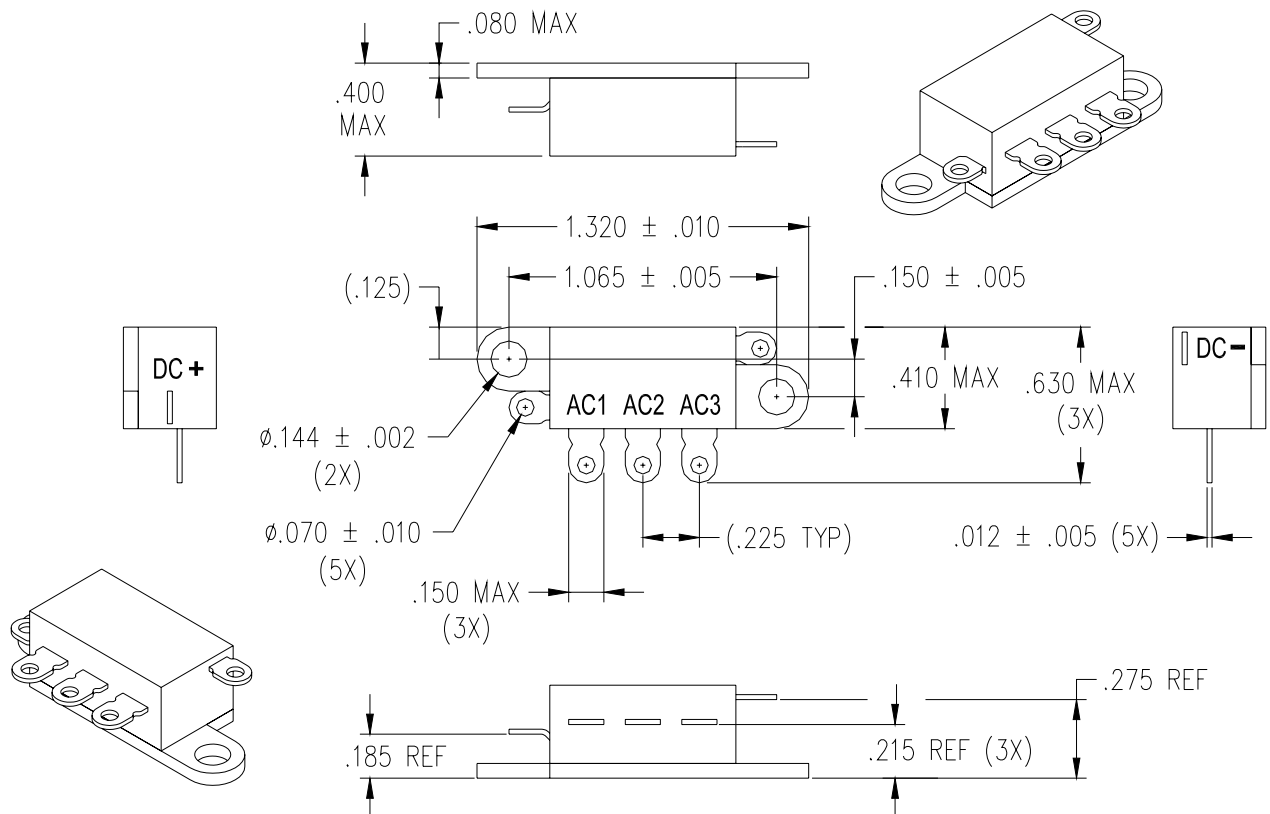
Thermal Impedance (Junction to Base) per Diode	Z <sub>θJB</sub>	-	-	0.80	°C/W
I <sub>H</sub> = 15A, t <sub>H</sub> = 5ms					
Module Thermal Resistance (Junction to Base)	R <sub>θJB</sub>	-	-	0.84	°C/W
Isolation to Base Plate	V <sub>ISO</sub>	-	-	1500	V
Module Weight	M	-	-	10	gms

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**Schematic Diagram:**



**Mechanical Outline:**



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