

Part Number: SCP-5911, Rev. -

### 3 Phase Full Wave Bridge Rectifier Module

#### Features

- Excellent Thermal Performance
- Compact package, Low Weight
- Isolated base plate: 1500V
- High Surge Capability

#### Maximum Ratings

(T<sub>j</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 T <sub>C</sub> = 100 °C T <sub>C</sub> = 125 °C	I <sub>O</sub>	-	-	30	A
		-	-	24	A
		-	-	18	A
Peak Surge Current Per Diode t <sub>P</sub> = 8.3ms	I <sub>FSM</sub>	-	-	150	A
Operating & Storage Temperature Range	T <sub>OP</sub> & T <sub>STG</sub>	- 55	-	175	°C

#### Electrical Characteristics

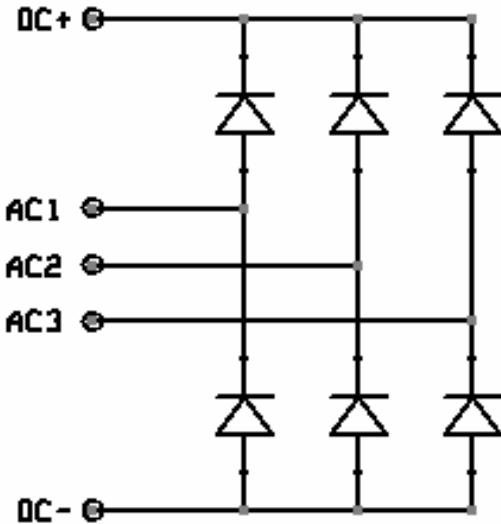
(T<sub>j</sub>=25°C UNLESS OTHERWISE SPECIFIED)

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

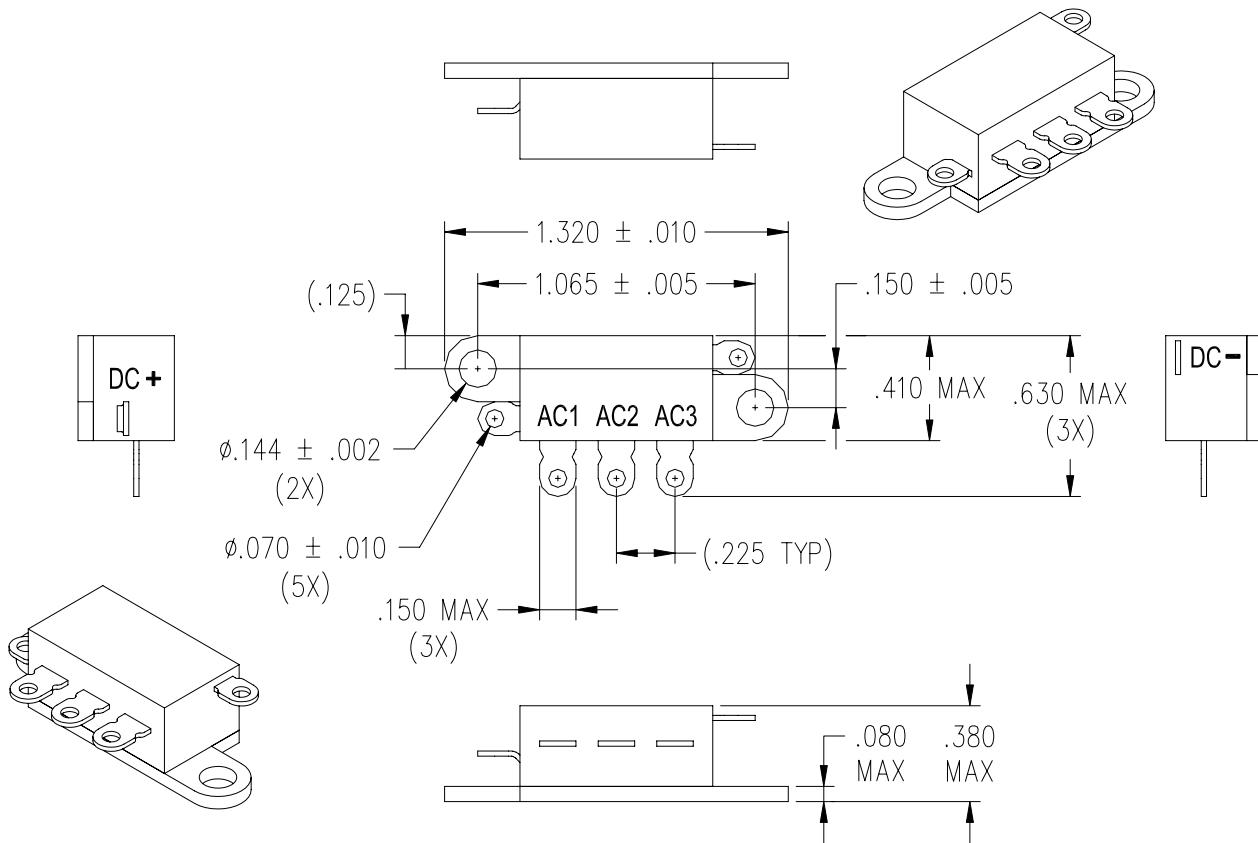
#### Package Characteristics

Thermal Impedance (Junction to Base) per Diode I <sub>H</sub> = 15A, t <sub>H</sub> = 5ms	Z <sub>θJB</sub>	-	-	0.80	°C/W
Module Thermal Resistance (Junction to Base)	R <sub>θJB</sub>	-	-	0.67	°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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