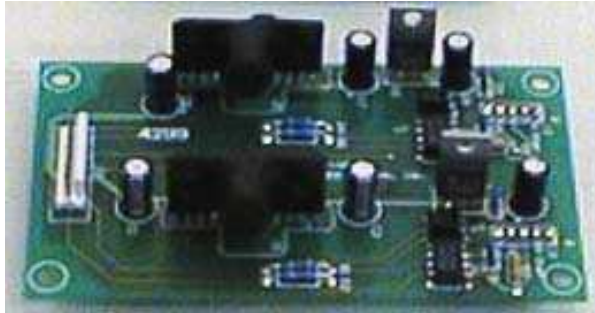


BAP1294 ISOLATED INTERFACE BOARD FOR *POWEREX* DUAL IPM MODULES



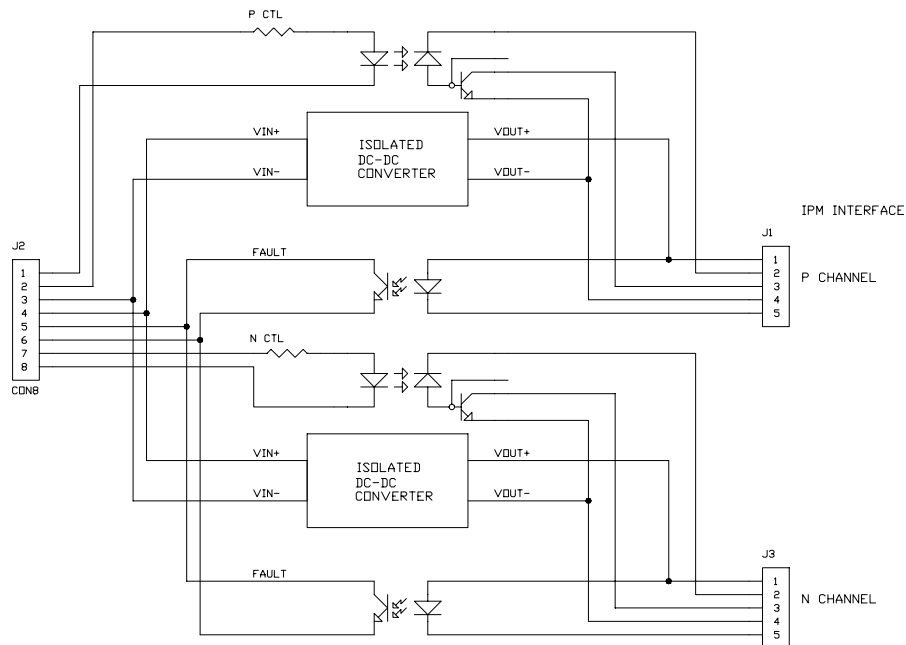
The AP-1294 provides a complete, tested, fast time-to-market solution for customers who need to interface to **POWEREX** Third Generation Dual IPM modules.

The AP-1294 incorporates two isolated DC-DC converters which supply power to the IPM module. High speed optocouplers provide the proper interface between the module and the customers' control electronics. The assembly provides direct mounting to the IPM module and is packaged in a small footprint printed circuit board that measures only 2.50" X 4.30".

The AP-1294 supports the following IPM modules:

- PM75DSA120
- PM100DSA120
- PM200DSA060

BLOCK DIAGRAM



ELECTRICAL SPECIFICATIONS

Absolute Maximum Ratings, $T_a = 25^\circ\text{C}$ unless otherwise specified

Parameter		Typical	Max	Min
V_{IN} - Input Voltage	(Volts DC)		18	
T_{OP} - Operating Temperature	($^\circ\text{C}$)	-	70	-10
T_{OS} - Storage Temperature	($^\circ\text{C}$)	-	85	-20
V_{ISO} Electrical Isolation	(VRMS for 1 min.)	-	2500	-

Electrical Characteristics, $T_a = 25^\circ\text{C}$, $V_{IN} = 15\text{V}$ unless otherwise specified

Parameter		Typical	Max	Min
V_{IN} - Input Voltage	(Volts DC)	15	18	12
I_{IN} - Input Current	(mA)		250	
V_{ON} - ON Control Voltage	(Volts DC)	12		
I_{CTL} - Control Current	(mA)	16		
V_{CE_FLT} - Fault Output Voltage	(Volts DC)		30	
I_{C_FLT} - Fault Output Current	(mA)		10	
V_R - Reverse Voltage	(Volts DC)		-5	

J2 - CONTROL INTERFACE CONNECTOR

Pin No.	Signal Name	Function
1	P-IGBT CTL RET	P Channel IGBT On/Off Control Return
2	P-IGBT CTL (+)	P Channel IGBT On/Off Control Signal (0 VDC = Off / 12 VDC = On)
3	V_{IN} -	Input Voltage Return (Ground)
4	V_{IN} +	Input Voltage (12 – 18 VDC)
5	IPM FAULT (+)	IPM Optoisolator Fault Output – Collector (Fault = Output Closed)
6	IPM FAULT (-)	IPM Optoisolator Fault Output – Emitter
7	N-IGBT CTL (+)	N Channel IGBT On/Off Control Signal (0 VDC = Off / 12 VDC = On)
8	N-IGBT CTL RET	N Channel IGBT On/Off Control Return

MECHANICAL OUTLINE

Maximum Board Height = 0.875"

Mating Connector: AMP P/N 640457-8 or equivalent

