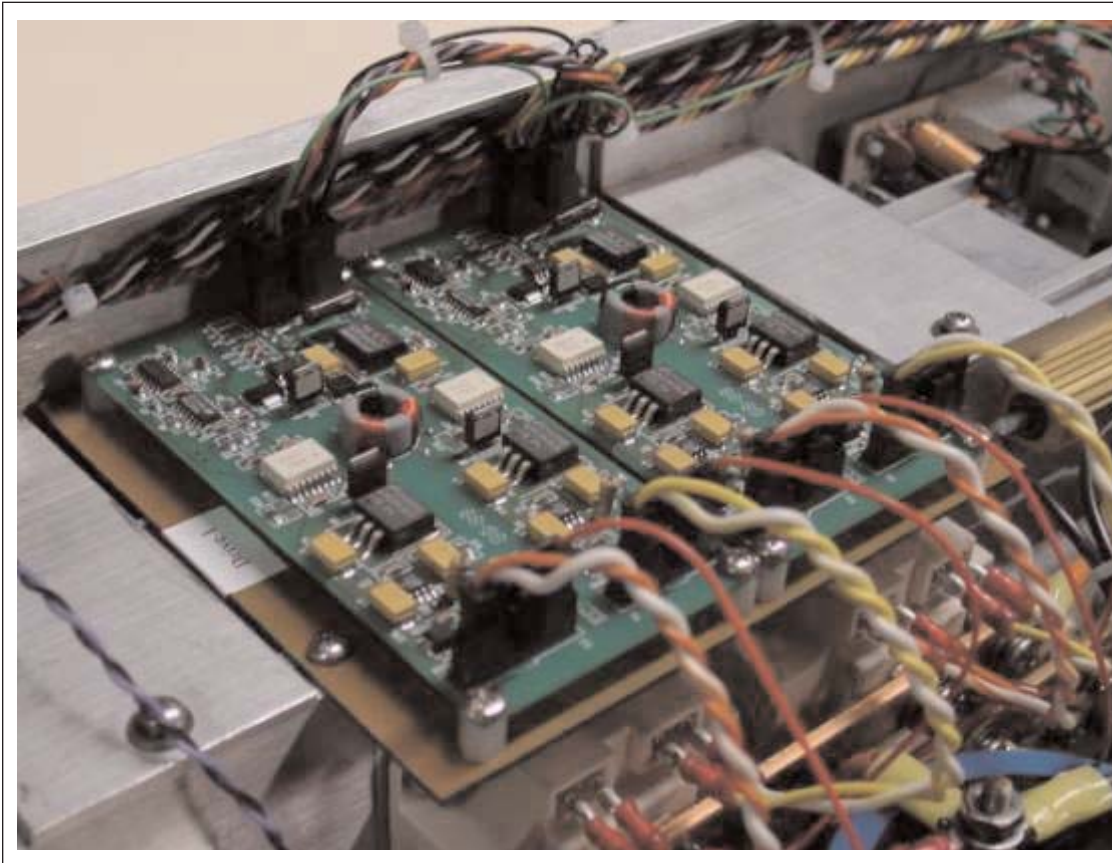




PCTI

Power Conversion Solutions



IGBT and MOSFET Driver Board Family

Dual IGBT Drive with Magnetic Coupler P/N 60.056

► ELECTRICAL CHARACTERISTICS (Ta = 25° C)

Input supply voltage: 15V +/- 5%

Maximum input current (for average output current of 100mA on each channel): 950mA

Output average current: 100mA for each channel

Output peak current: 15A

Minimum gate turn-on resistance: 1Ω

Minimum gate turn-off resistance: 1Ω

Collector-emitter voltage sense: 1200V/1700V

Reference for VCE monitoring: Adjustable 3-12V

Error output – input propagation time: 500 nsec

Input threshold voltage high (min): 6.8V (for 15V input)

2.2 V (for 5V input)

Input threshold voltage low (max): 7.4 V (for 15V input)

2.8 V (for 5V)

Common mode rejection: typical 75 KV/μsec

Input–output momentary withstand voltage :

4000V for 1200V version (1min, RH<50%, T = 25°C)

6000V for 1700V version (1min, RH<50%, T = 25°C)

Dead-time range: 0 to 10 μsec (higher values are also possible)

Propagation delay time: min 300 nsec

typical 500nsec

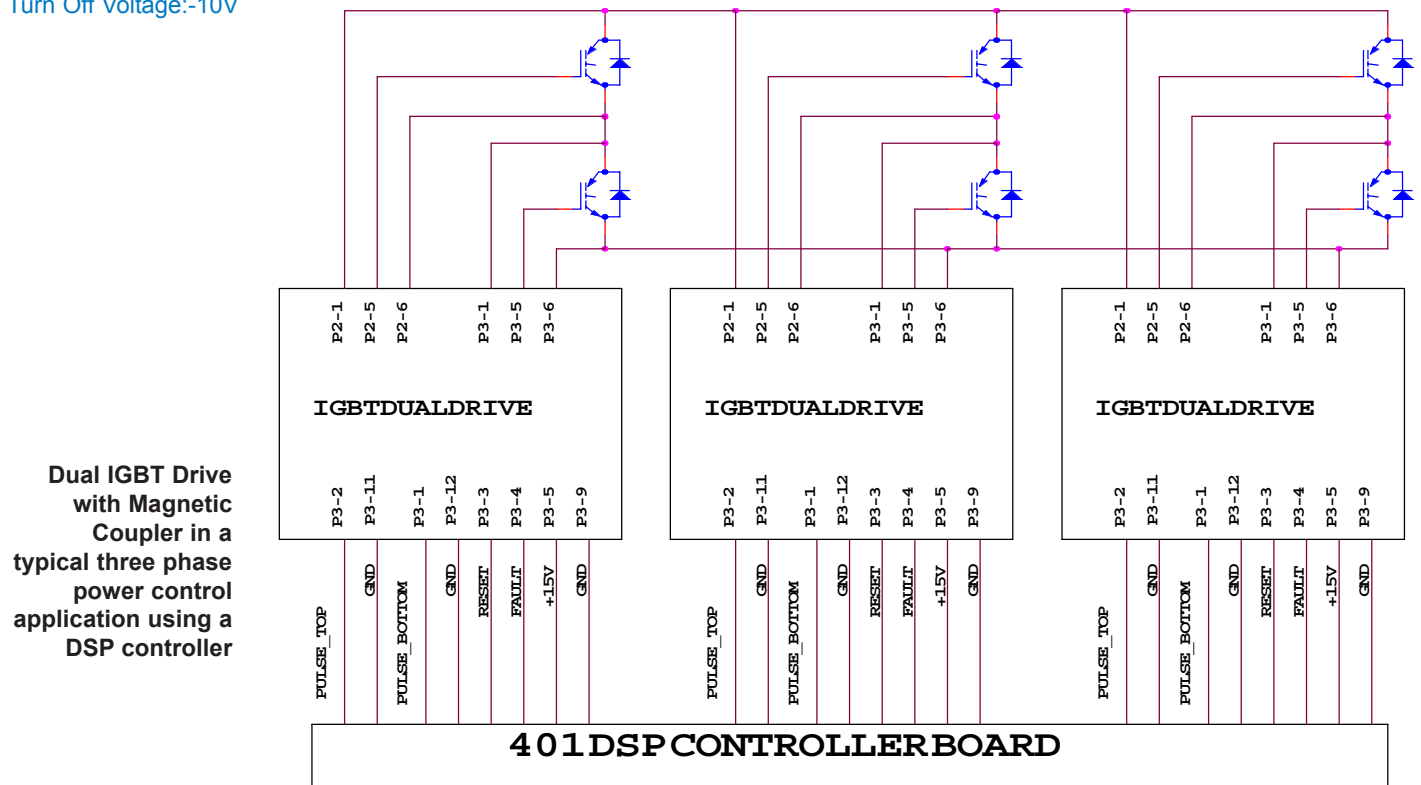
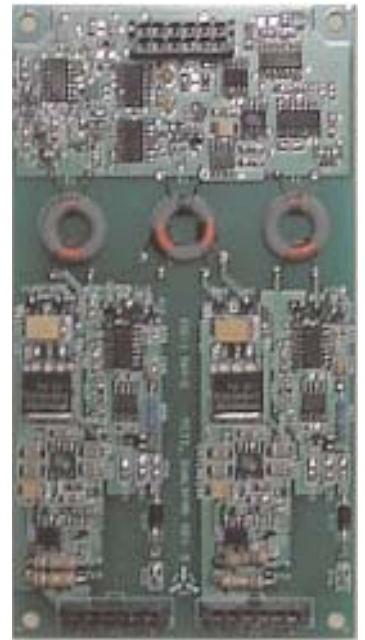
maximum 700nsec

NOTE: These delay times are considered for the case with no dead time and +15V input selection

Operating temperature: -40 to 100 C

Turn On Voltage: 15V

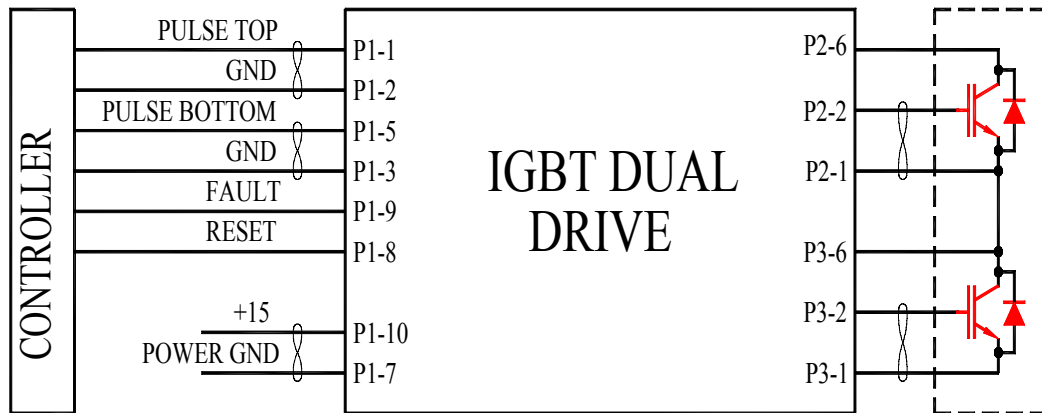
Turn Off Voltage:-10V



Dual IGBT Drive with Opto Coupler P/N 60.050

► ELECTRICAL CHARACTERISTICS (Ta = 25° C)

- Input supply voltage: 15V +/- 5%
- Maximum input current (for average output current of 45mA on each channel): 750mA
- Output average current: 100mA for each channel
- Output peak current: 12A
- Minimum gate turn-on resistance: 1.25Ω
- Minimum gate turn-off resistance: see application note
- Collector-emitter voltage sense: 1200V
- Reference for VCE monitoring: 7V
- Error output – input propagation time: 5 μsec
- Input threshold voltage high (min): 12V (for 15V input)
2.4V (for 5V input)
- Input threshold voltage low (max): 3.6 V(for 15V input)
0.5V (for 5V)
- Common mode rejection: typical 30KV/μsec
min 15KV/μsec
- Input–output momentary withstand voltage : 3750V rms (1min, RH<50%, T = 25°C)
- Dead-time range: 0 to 10 μsec (higher values are also possible)
3.5μsec standard factory preset
- Propagation delay time: min 300 nsec
typical 500nsec
maximum 700nsec
- Operating temperature: -40 to 100 C
- Turn On Voltage: 15V
- Turn Off Voltage: 0V



Dual Drive with Optocoupler (similar for Dual Drive with Magnetic Coupler)

High Power Single IGBT Drive P/N 60.045

► ELECTRICAL CHARACTERISTICS (Ta = 25° C)

Input supply voltage: 15V +/- 5%

Maximum input current (for average output current of 200mA): 1A

Output average current: 200mA

Output peak current: 30A

Minimum gate turn-on resistance: 0.5Ω

Minimum gate turn-off resistance: 0.5Ω

Collector-emitter voltage sense: 1200V/1700V

Reference for VCE monitoring: Adjustable 5-12V

Error output – input propagation time: 1 μsec

Input threshold voltage high (min): 10.5V (for 15V input)
2.2V (for 5V input)

Input threshold voltage low (max): 4V (for 15V input)
0.8V (for 5V)

Common mode rejection: 100KV/μsec

Input–output momentary withstand voltage : 6000V rms (1min, RH<50%, T = 25°C)

Dead-time range: 0 to 10 μsec (higher values are also possible)

Propagation delay time: typical 500nsec

Operating temperature: -40 to 100 C

Turn On Voltage: +15V

Turn Off Voltage: -15V



PCTI's IGBT Drives can be combined with our ADMC401 Universal DSP Controller Board for a total control solution for your power electronic equipment. This solution will save you time, reduce your costs and increase the performance of your equipment. Contact us for more details or applications expertise.

About PCTI

PCTI is a regular manufacturer of innovative power electronic products including control components, subassemblies and power electronic apparatus. With products like our IGBT drivers and Universal DSP Controller, we are addressing a new era in power electronics as applied to industrial equipment. Our engineering staff has in-depth knowledge in the key areas of power conversion such as power semiconductor analysis and application, thermal exchange, magnetic design and packaging. Let our extensive industrial applications expertise in power conversion benefit your products and markets.



PCTI

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