

INTEGRATED CONNECTOR MODULES

Gigabit belStack™ with LEDs



BM01816

- Dual port shielded RJ-45 connector with integrated Gigabit Ethernet magnetics
- Compatible with a variety of Gigabit Ethernet transceiver ICs and 10/100Base-TX transceiver ICs
- Operating temperature 0° to +70° C
- Storage temperature -40° to +85° C
- Complies with IEEE 802.3ab standards and all Gigabit Ethernet specifications
- Integrated design conserves valuable board space
- Minimum interwinding breakdown voltage of 1500 Vrms
- Adaptable, modular design provides higher reliability

ELECTRICAL SPECIFICATIONS AT 25° C

Part Number	Insertion Loss dB max		Return Loss dB min		Common to Differential Mode Rejection dB min	Common to Common Mode Rejection dB min	Crosstalk dB min	Hipot Vrms min
	0.1MHz to 100MHz	100MHz to 125MHz	0.5MHz to 40MHz	40MHz to 100MHz	100KHz to 100MHz	100KHz to 100MHz		
0843-2B1T-33	-0.8	-1.2	-18	-12 + 20 log (f/80 MHz)	-35	-30	-33 + 20 log (f/100MHz)	1500
0843-2C1T-33	-0.8	-1.2	-18	-12 + 20 log (f/80 MHz)	-35	-30	-33 + 20 log (f/100MHz)	1500

Part Number	LED*				
	Color		Polarity		
			Pin 10	Pin 11	Pin 12
0843-2B1T-33	3-wire, bi-color green/orange		Green	+	-
			Orange	-	+
0843-2C1T-33	3-wire, bi-color green/yellow		Green	+	-
			Yellow	-	+

*One 3-wire, bi-color LED per port

Available Options

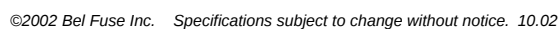
- Various transformer turns ratios
- Various high voltage capacitor values
- Various LED color combinations

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SCHEMATIC

The schematic diagram illustrates a 4-channel LED driver circuit for an RJ45 connector. The circuit is organized into four identical channels, each processing one of the four data pairs (1-2, 3-4, 5-6, 7-8) from the RJ45 connector. Each channel consists of a 1CT:1CT transformer, a 0.1µF capacitor, and a 75Ω resistor. The input pins are 11, 12, and 10, and the output pins are 1, 2, 3, 4, 5, 6, 7, and 8. The circuit is shielded and includes a 1000pF 2kV capacitor.



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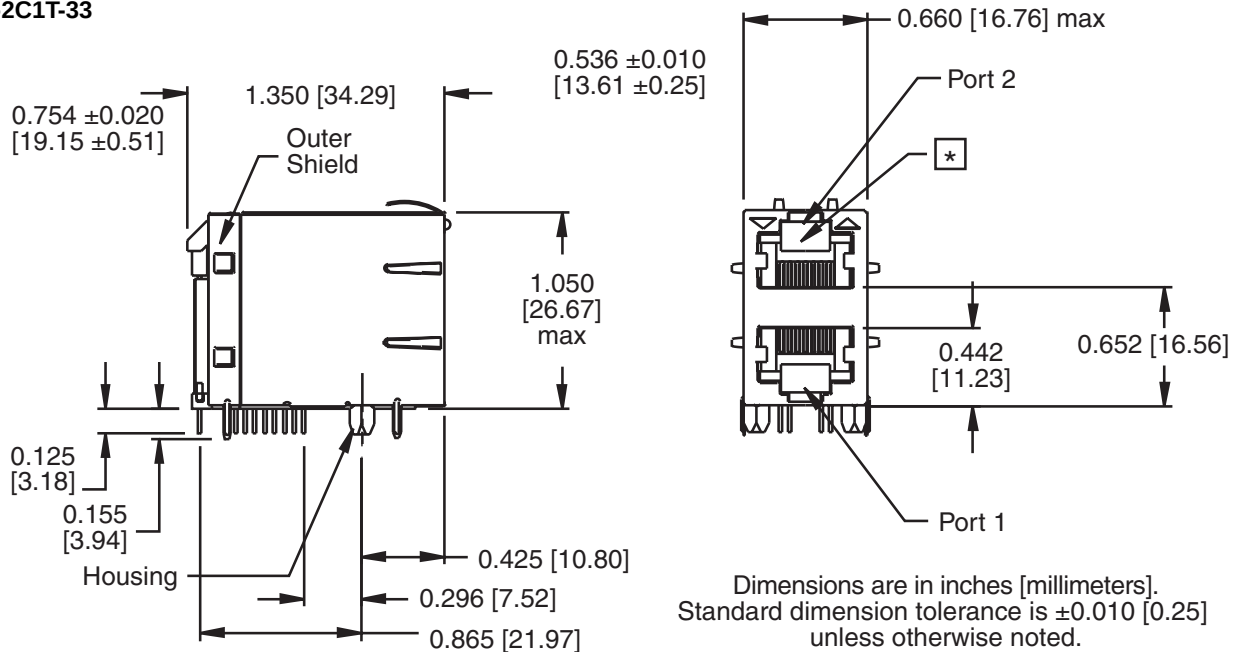
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BM01816

MECHANICAL

0843-2B1T-33

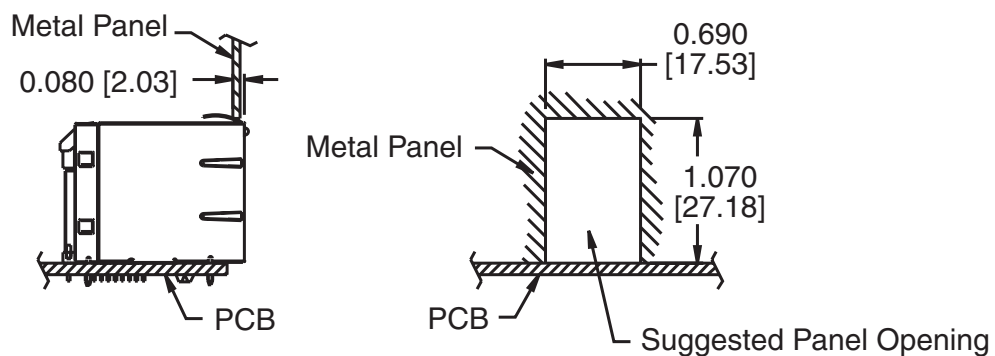
0843-2C1T-33



Notes

Plastic Housing	Thermoplastic, flammability rating UL 94V-0
Contacts	50 micro-inch hard gold plating
Pins	Tin-coated copper wire, DIA 0.018" [0.46]
Solderability	Per MIL Std. 202, Method 208
Metal Shield	Tin lead copper alloy

*Jack cavity conforms to FCC rules and regulations, part 68, subpart F.

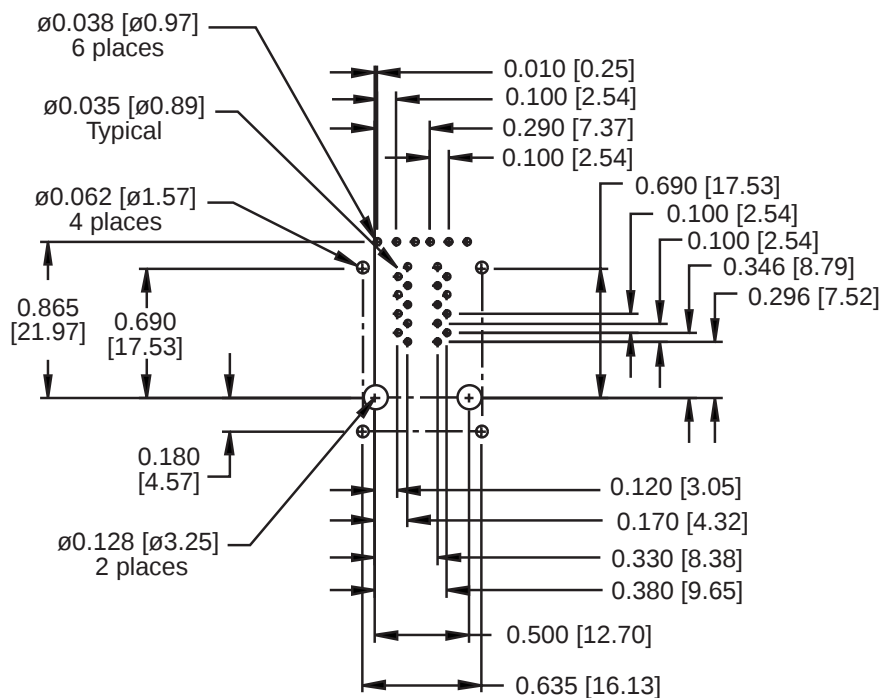


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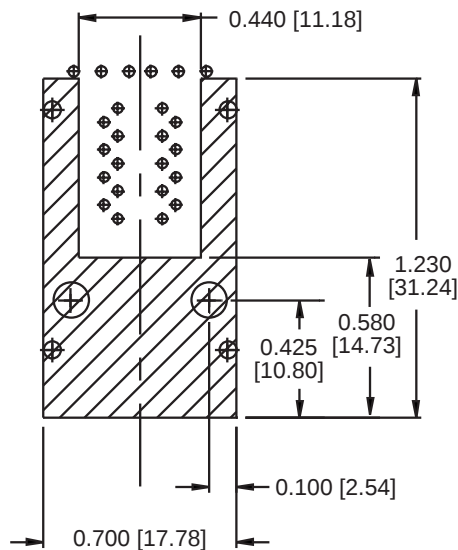
PAD LAYOUT

0843-2B1T-33

0843-2C1T-33



Suggested PCB Pad Layout
Component Side View



Notes

The shaded area of bottom side of part may be covered by metal shield.

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CORPORATE

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