



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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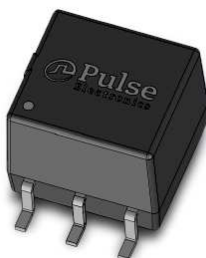
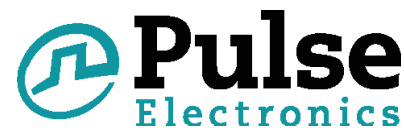
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# COPPERHEAD™ HIGH SPEED SINGLE TRANSFORMER

Military/Aerospace Grade



- Compliant with ANSI X3T111, Fiber Channel, FC-PH-3 for quarter/full speed applications, SMPTE, IEEE1394 Firewire
- Moisture sensitivity Level 3
- Pick and place compatible
- IC grade package withstands 225°C peak Temperature profile
- Operating Temperature -55°C to +125 °C

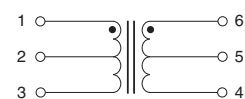
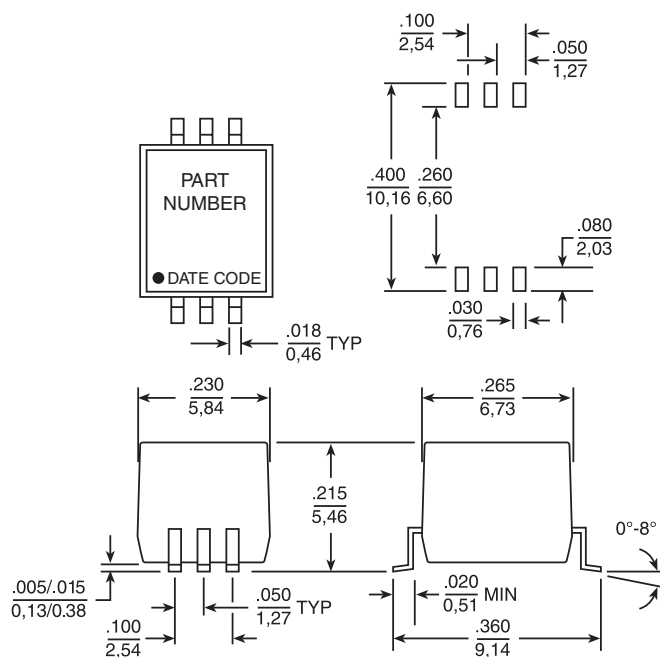
## Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C

Part Number	Turns Ratio (±5%)	Primary Inductance (μH MIN)	Rise Time @20 & 80% (pS MAX)	DCR (Ω MAX)	Hi-Pot (Vrms MIN)	Insertion Loss (dB MAX)	Application Nominal Bit Rate (Mbaud)
T-330ACT	1CT : 1CT	26	350.000	0.2	1500	-1.50	265.6(fullspeed)
T-531ACT	1CT : 1CT	7.5	325.000	0.2	1500	-2.00	531 (full speed)
T-1062ACT	1CT : 1CT	3.75	280.000	0.2	1500	-2.00	1,062.5(fullspeed)
T-1250ACT	1CT : 1CT	3.75	280.000	0.2	1500	-2.00	1,250(fullspeed)
T-1485ACT	1CT : 1CT	3.75	280.000	0.2	1500	-2.00	1,485(fullspeed)

## Mechanical

## Schematic

T-330ACT, T-531ACT, T-1062ACT, T-1250ACT, T-1485ACT



NOTE: COPLANARITY IS 0.004° (0.102MM) MAXIMUM  
 Weight . . . . . 0.5 grams  
 Tube . . . . . 80/tube  
 Dimensions: Inches  
 mm  
 Unless otherwise specified, all tolerances are ±0.005  
 0.13

## Application Notes

Pulse Specialty Components has designed Fibre Channel dual transformers specifically for point to point coupling to 150 twinax cable. The isolation transformers protect the station from static charges that may develop on the cable, and prevents ground loop currents from being transferred between stations. The devices have also been designed to provide common mode rejection within the transmission band

and thus reduce EMI. The wide bandwidth of these devices minimizes data dependent jitter by providing fast signal rise times. Low-end bandwidth also minimizes base-line wander, another contributor to jitter. The dual package allows connection of both transmit and receive channels, as shown in the application circuit below. Surface-mount packaging also allows a cost-effective solution.

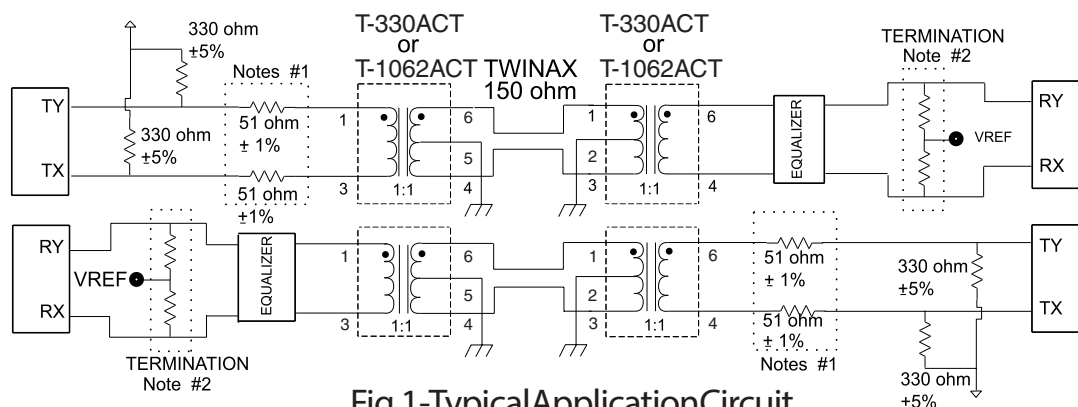


Fig.1-Typical Application Circuit

1. The transformer, 51Ω resistors, and the impedance of the driver are matched to achieve the best return loss (S11) for the transmitter of the 150Ω system.
2. The total impedance of termination resistor network is 150 Ω.
3. When laying out PCB, transmission line methods must be utilized to maintain return loss and signal integrity. Transformer must be located within .50" of the DB9 connector.
4. It is recommended that the center tap (CT) of transformer(s), cable side, be connected to earth/chassis (cable shield) ground either directly or via a transient voltage suppressor (TVS) type component and earth/chassis ground should be "AC-coupled" to signal (digital) ground through a .027uF, 500V capacitor.

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