

# TRANSFORMERS FOR ECHELON<sup>®</sup> NEURON<sup>®</sup> ICs

## For Use with 3120<sup>™</sup> and 3150<sup>™</sup> Chips Produced by Motorola and Toshiba



- For 1.25Mbps twisted pair applications
- Provides 1500Vrms isolation for 1 minute
- 40°C to +80°C operating temperature range

### Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

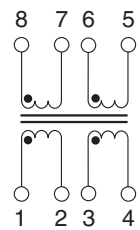
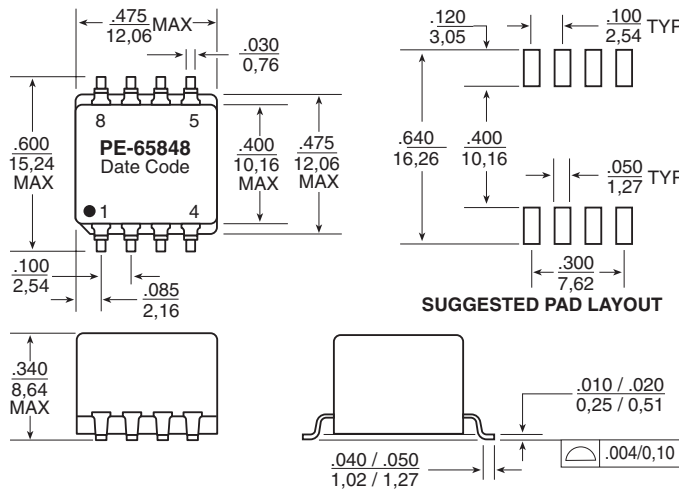
Standard Part Number	RoHS-6 Compliant Part No.	Turns Ratio (±2%)	Primary Inductance (mH)	DCR Primary (Ω MAX)	DCR Secondary (Ω MAX)	Primary Pins (Network Side)	Package
PE-65848	PE-65848NL	1CS:1CS	3.5 - 6.5	1.0	1.0	8 - 5	SMT
PE-65948	PE-65948NL	1CT:1CT	3.5 - 6.5	1.0	1.0	2 - 6	THT

NOTE: CS = Center Split, CT = Center Tap

### Mechanicals

### Schematics

#### PE-65848



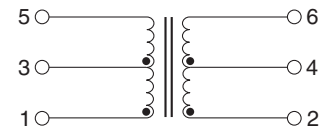
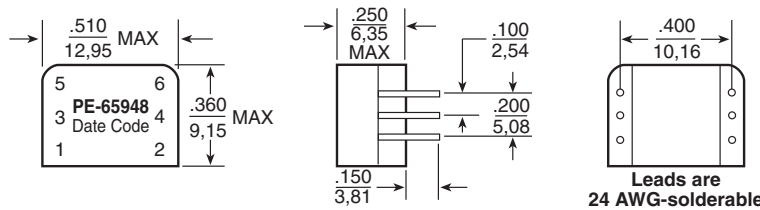
PE-65848 PE-65812

Weight ..... 2.0 grams ..... 1.2 grams  
Tape & Reel ..... .250/reel ..... N/A  
Tube ..... .30/tube ..... .60/tube

Dimensions: Inches  
mm

Unless otherwise specified all tolerances are ±.010  
0,25

#### PE-65948



Lon<sup>®</sup> technology makes possible a new generation of smart, low-cost products that communicate with one another and that can be linked together to serve applications in consumer electronics, factory automation, vehicle controls, commercial building controls, home automation, and other industries. The PE-65848 and PE-65948 transformers are designed specifically for use with Echelon's Neuron<sup>®</sup> 3120<sup>™</sup> and Neuron<sup>®</sup> 3150<sup>™</sup> chips in 1.25 Mbps, twisted pair bus applications. The transformers provide DC isolation

and common mode noise rejection. Their characteristics have been optimized to assure the proper pulse waveform is transmitted onto the twisted pair cable when used in conjunction with the recommended circuitry. The transformers provide 1500Vrms high voltage isolation for one minute, but are not intended for use as a hazardous voltage safety barrier. Order PE-65848T for optional Tape & Reel packaging. When using PE-65948, center taps can be created by connecting winding ends together on the PCB.

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