

# ISDN U-INTERFACE TRANSFORMERS

## For Applications with 2B1Q and 4B3T Coding



### Additional Specifications

| Return Loss (2B1Q)<br>(10 and 25 KHz) | Longitudinal Balance<br>(2B1Q) |               | Longitudinal Balance<br>(4B3T) |           | Surge Voltage Resistability<br>(ALL) |             |
|---------------------------------------|--------------------------------|---------------|--------------------------------|-----------|--------------------------------------|-------------|
| 20 dB MIN                             | 281 Hz to 40 KHz               | 55 dB MIN     | 5 KHz                          | 20 dB MIN | Metallic @ 800 V Peak                | 10/700 µsec |
| —                                     | Above 40 KHz                   | -20 dB/decade | 20 KHz-150 KHz                 | 40 dB MIN | Long. @ 2400 V Peak                  | 10/560 µsec |
| —                                     | —                              | —             | 1 MHz                          | 36 dB MIN | —                                    | —           |

### Transformer Selection

| Company  | Chip                  | Coding | Transformer<br>2000 Vrms<br>Isolation | Transformer<br>High Isolation<br>Models | Echo<br>Cancellation<br>Hybrid |
|----------|-----------------------|--------|---------------------------------------|---|--------------------------------|
| Motorola | MC145472              | 2B1Q   | PE-65579                              | —                                       | —                              |
| Motorola | MC145572              | 2B1Q   | PE-68628                              | PE-68668                                | —                              |
| National | TP 3410               | 2B1Q   | PE-65583 <sup>(1)</sup>               | PE-68631                                | —                              |
|          |                       |        | PE-65584 <sup>(1)</sup>               | PE-68681                                | —                              |
| Siemens  | PEB 2091              | 2B1Q   | PE-65575 <sup>(4)</sup>               | PE-68669                                | PE-36005 or<br>PE-36005W       |
| Siemens  | PEB 2090<br>PEB 20901 | 4B3T   | PE-65578                              | —                                       | —                              |
| Thomson  | SD 5411               | 2B1Q   | PE-65581                              | —                                       | —                              |

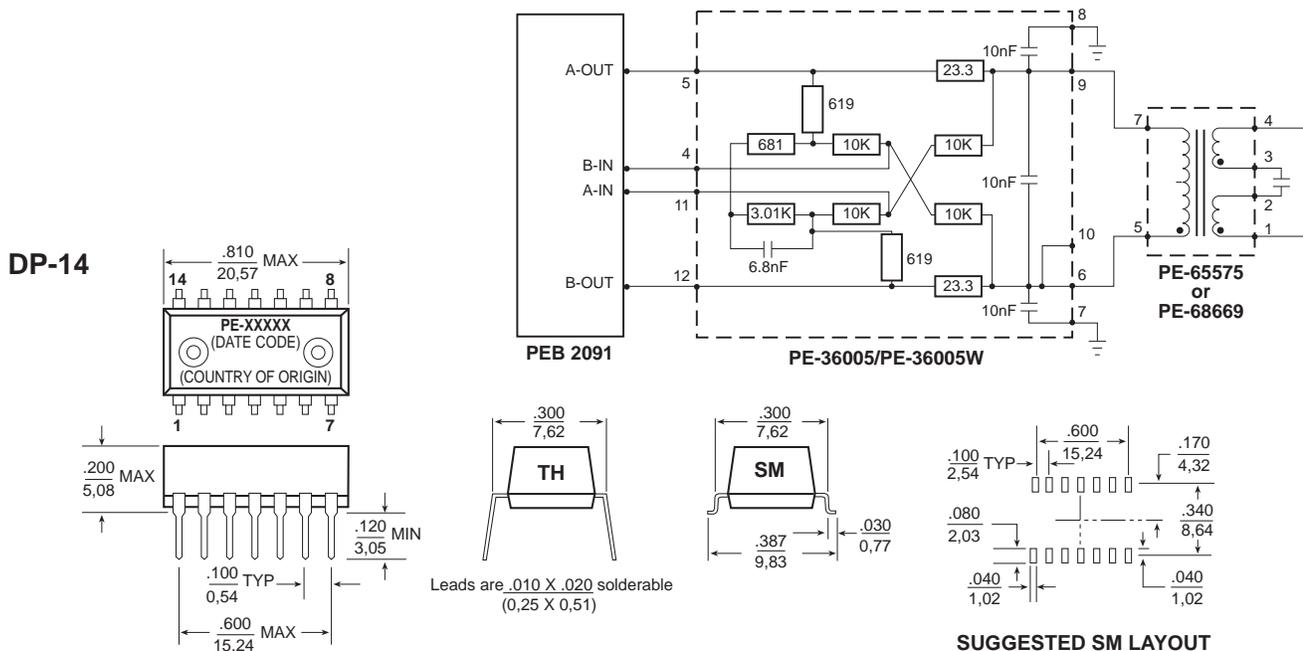
### Echo Cancellation Hybrids

| PE-36005  | Through Hole  | THT | DP-14/TH |
|-----------|---------------|-----|----------|
| PE-36005W | Surface Mount | SMT | DP-14/SM |

#### Notes:

- PE-65583 and PE-65584 are electrically identical, but have different schematics.
- Pin 6 removed for keying to printed circuit board.
- Common Mode Chokes for EMI reduction are also available. Recommended part numbers are either PE-68624 (surface mount) or PE-65944 (through hole) – see data sheet **G002**.
- Additional model PE-65585, equivalent to PE-65575, has standoff. Maximum height is .475 (12,07).

### Typical Application Circuit for Transformer and Echo Cancellation Hybrid



#### SUGGESTED SM LAYOUT

|        | DP-14TH            | DP-14SM    |
|--------|--------------------|------------|
| Weight | . . . . .1.5 grams | .1.5 grams |
| Tube   | . . . . .25/tube   | .25/tube   |

Dimensions: Inches  
mm

Unless otherwise specified all tolerances are  $\pm .010$   
 $0,25$

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