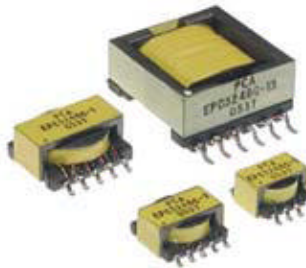


# Power over Ethernet (PoE/PD) Flyback Transformer EPC3248G-X & EPC3248G-X-LF



- Used in SMPS DC/DC Converter as a Flyback Transformer in PoE/Powered Devices (PD)
- Switching Frequency : 300 KHz to 400 KHz
- Add "-LF" after part number for Lead Free
- \* 40 % Duty Cycle Typ. @ 48 V Input
- UL 94V-0 Recognized Components
- UL 1446 Class B Insulation System
- Low Core Loss Material

## Electrical Specifications @ 25°C

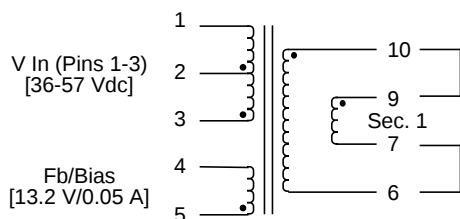
| Part Number | Chipset  | PoE Class | PD Power (Watts) |          | Class Usage | Voltage (Vdc) |       |         | Primary OCL (μH ± 10%) @ 300 KHz, 0.1 Vrms | Current (Amp.) |         | Package Type | Schematic |
|-------------|----------|-----------|------------------|----------|-------------|---------------|-------|---------|--------------------------------------------|----------------|---------|--------------|-----------|
|             |          |           | Min.             | Max.     |             | V In          | V Out | Fb Bias |                                            | Sec 1          | Fb Bias |              |           |
| EPC3248G-1  | DPA425   | 0         | 0.44             | 12.95    | Default     | 36-57         | 3.3   | 13.2    | 120                                        | 3.92           | .050    | ER14.5       | 1         |
| EPC3248G-2  | DPA425   | 0         | 0.44             | 12.95    | Default     | 36-57         | 5.0   | 13.33   | 120                                        | 2.59           | .050    | ER14.5       | 1         |
| EPC3248G-3  | DPA425   | 0         | 0.44             | 12.95    | Default     | 36-57         | 12.0  | 12.0    | 120                                        | 1.08           | .050    | ER14.5       | 1         |
| EPC3248G-4  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 36-57         | 3.3   | 13.2    | 200                                        | 1.16           | .050    | ER9.5        | 2         |
| EPC3248G-5  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 36-57         | 5.0   | 13.33   | 200                                        | 0.77           | .050    | ER9.5        | 2         |
| EPC3248G-6  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 36-57         | 12.0  | 12.0    | 200                                        | 0.32           | .050    | ER9.5        | 2         |
| EPC3248G-7  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 36-57         | 3.3   | 13.2    | 120                                        | 1.97           | .050    | ER11         | 1         |
| EPC3248G-8  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 36-57         | 5.0   | 13.0    | 120                                        | 1.30           | .050    | ER11         | 1         |
| EPC3248G-9  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 36-57         | 12.0  | 12.0    | 120                                        | 0.54           | .050    | ER11         | 1         |
| EPC3248G-10 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 36-57         | 3.3   | 13.2    | 120                                        | 3.92           | .050    | ER14.5       | 1         |
| EPC3248G-11 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 36-57         | 5.0   | 13.2    | 120                                        | 2.59           | .050    | ER14.5       | 1         |
| EPC3248G-12 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 36-57         | 12.0  | 12.0    | 120                                        | 1.08           | .050    | ER14.5       | 1         |
| EPC3248G-13 | DPA426   | 4(PoEP)   | Reserved         | Reserved | Reserved    | 36-57         | 3.3   | 13.2    | 25                                         | 12.12          | .050    | EFD20        | 3         |
| EPC3248G-14 | DPA426   | 4(PoEP)   | Reserved         | Reserved | Reserved    | 36-57         | 5.0   | 13.2    | 25                                         | 8.0            | .050    | EFD20        | 3         |
| EPC3248G-15 | DPA426   | 4(PoEP)   | Reserved         | Reserved | Reserved    | 36-57         | 12.0  | 12.0    | 25                                         | 3.33           | .050    | EFD20        | 3         |

- **Isolation** : Pri., Bias to Sec. ; 1500 Vrms • **Isolation** : Pri. to Bias ; 500 Vrms •

Note : Class 4 is currently reserved for Power over Ethernet Plus (PoEP) and should not be used at this time.

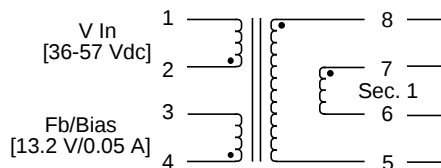
| Notes :                                                       | EPC3248-X                     | EPC3248-X-LF                  |
|---------------------------------------------------------------|-------------------------------|-------------------------------|
| 1. Assembly Process (Solder Composition)                      | SnPb                          | Pb-Free                       |
| 2. Peak Solder Rating (per IPC/JEDEC-J-STD-020C)              | 225°C                         | 260°C                         |
| 3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC-J-STD-020C) | 1<br>(Unlimited, ≤30°C/60%RH) | 1<br>(Unlimited, ≤30°C/60%RH) |
| 4. Weight                                                     | TBD grams                     | TBD grams                     |
| 5. Packaging Information (Tube)                               | TBD pcs / tube                | TBD pcs / tube                |

**Schematic 1**



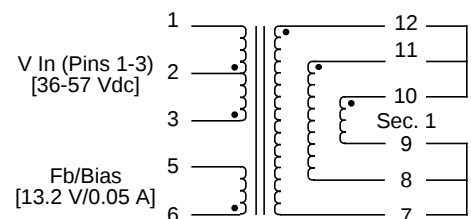
- Note :
1. Input Pins : Pins 1 & 3
  2. Connect Pins 9,10 and 6,7 in user board for higher power

**Schematic 2**



- Note :
1. Input Pins : Pins 1 & 2
  2. Connect Pins 8,7 and 5,6 in user board for higher power

**Schematic 3  
(Reserved for Class 4 PoEP)**



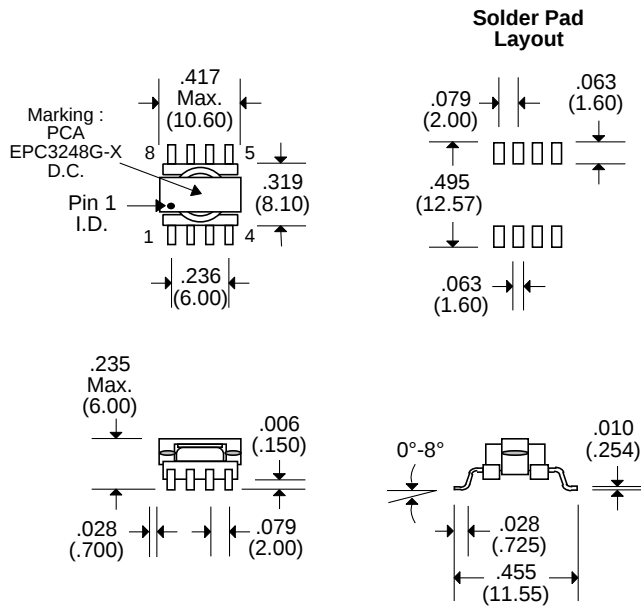
- Note :
1. Input Pins : Pins 1 & 3
  2. Connect Pins 12,11,10 and 9,8,7 in user board for higher power

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25

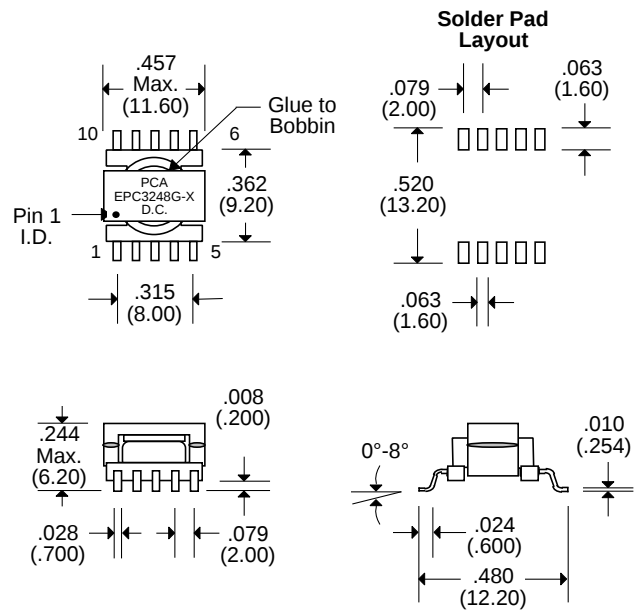
# Power Over Ethernet (PoE/PD) Flyback Transform

## EPC3248G-X & EPC3248G-X-LF

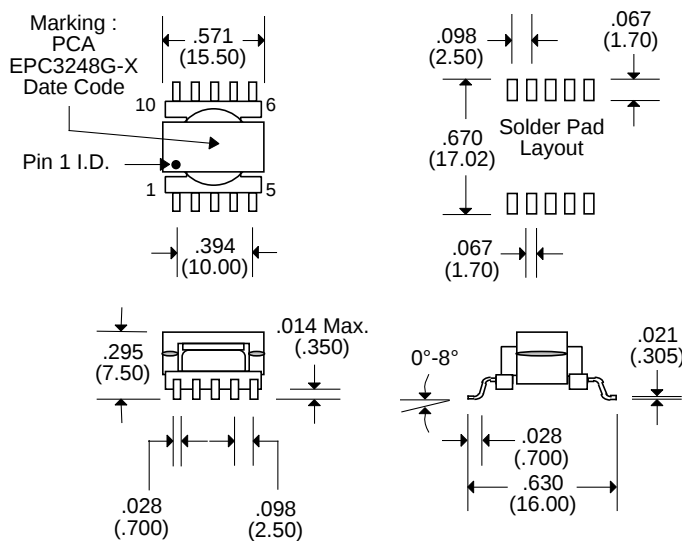
**Package ER9.5**



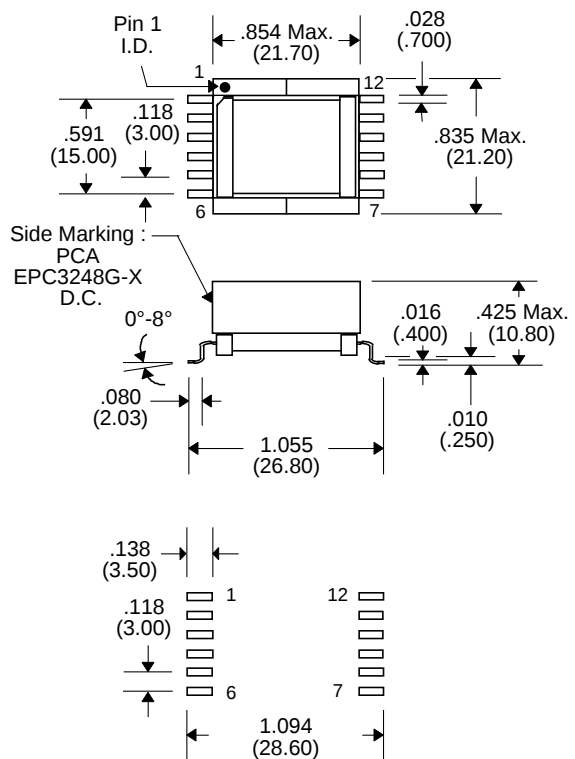
**Package ER11**



**Package ER14.5**



**Package EFD20  
(Reserved for Class 4 PoEP)**



Unless Otherwise Specified Dimensions are in Inches /mm ± .010 / .25