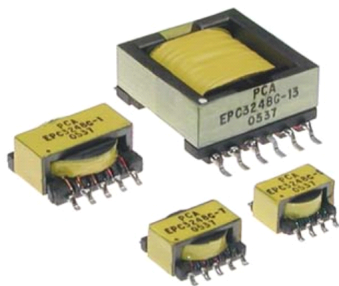


# Power over Ethernet (PoE/PD) Flyback Transformer

## 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
- Input Voltage : 36-57 VDC
- 40 % Duty Cycle Typ. @ 48 VDC Input Voltage
- UL 94V-0 Recognized Materials
- UL 1446 Class B Insulation System
- Storage Temperature : -40°C to +125°C
- Operating Temperature : -40°C to +85°C

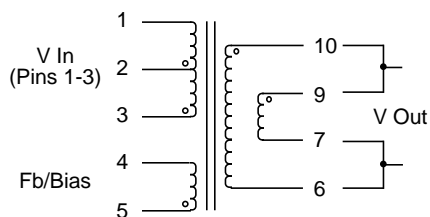
### Electrical Specifications @ 25°C

| Part Number | Chipset  | PoE Class | PD Power (Watts) |          | Class Usage | Voltage (Vdc) |         | Current (Amp.) |         | Primary OCL (µH ± 10%) @ 300 KHz, 0.1 Vrms | Le (µH Max.) @ 300 KHz, 0.1 Vrms | Package Type | Schematic |
|-------------|----------|-----------|------------------|----------|-------------|---------------|---------|----------------|---------|--|----------------------------------|--------------|-----------|
|             |          |           | Min.             | Max.     |             | V Out         | Fb Bias | V Out          | Fb Bias |  |                                  |              |           |
| EPC3248G-1  | DPA425   | 0         | 0.44             | 12.95    | Default     | 3.3           | 13.2    | 3.92           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-2  | DPA425   | 0         | 0.44             | 12.95    | Default     | 5.0           | 13.33   | 2.59           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-3  | DPA425   | 0         | 0.44             | 12.95    | Default     | 12.0          | 12.0    | 1.08           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-4  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 3.3           | 13.2    | 1.16           | 0.05    | 200  | 2.5                              | ER9.5        | 2         |
| EPC3248G-5  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 5.0           | 13.33   | 0.77           | 0.05    | 200  | 2.5                              | ER9.5        | 2         |
| EPC3248G-6  | DPA423   | 1         | 0.44             | 3.84     | Optional    | 12.0          | 12.0    | 0.32           | 0.05    | 200  | 2.5                              | ER9.5        | 2         |
| EPC3248G-7  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 3.3           | 13.2    | 1.97           | 0.05    | 120  | 3.5                              | ER11         | 1         |
| EPC3248G-8  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 5.0           | 13.0    | 1.30           | 0.05    | 120  | 3.5                              | ER11         | 1         |
| EPC3248G-9  | DPA424   | 2         | 3.84             | 6.49     | Optional    | 12.0          | 12.0    | 0.54           | 0.05    | 120  | 3.5                              | ER11         | 1         |
| EPC3248G-10 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 3.3           | 13.2    | 3.92           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-11 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 5.0           | 13.2    | 2.59           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-12 | DPA424/5 | 3         | 6.49             | 12.95    | Optional    | 12.0          | 12.0    | 1.08           | 0.05    | 120  | 2.5                              | ER14.5       | 1         |
| EPC3248G-13 | DPA426   | 4(PoE+)   | Reserved         | Reserved | Reserved    | 3.3           | 13.2    | 12.12          | 0.05    | 25   | 4.0                              | EFD20        | 3         |
| EPC3248G-14 | DPA426   | 4(PoE+)   | Reserved         | Reserved | Reserved    | 5.0           | 13.2    | 8.0            | 0.05    | 25   | 4.0                              | EFD20        | 3         |
| EPC3248G-15 | DPA426   | 4(PoE+)   | Reserved         | Reserved | Reserved    | 12.0          | 12.0    | 3.33           | 0.05    | 25   | 4.0                              | EFD20        | 3         |

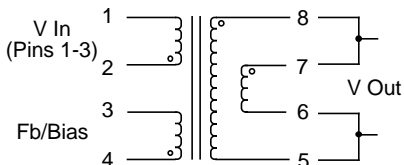
- Isolation : Pri., Bias to Sec. ; 1500 Vrms
- Isolation : Pri. to Bias ; 500 Vrms

| Notes :                            | EPC3248-X                    | EPC3248-X-LF                 |
|------------------------------------|------------------------------|------------------------------|
| 1. Lead Finish                     | SnPb                         | Hot Dipped Sn or SnCu        |
| 2. Peak Solder Rating              | 225°C                        | 260°C                        |
| 3. Moisture Sensitive Levels (MSL) | 1<br>(Unlimited, 30°C/60%RH) | 1<br>(Unlimited, 30°C/60%RH) |

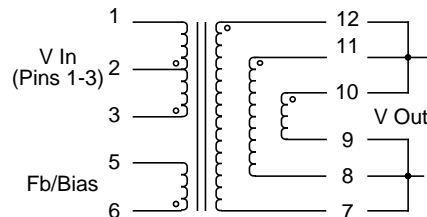
Schematic 1



Schematic 2



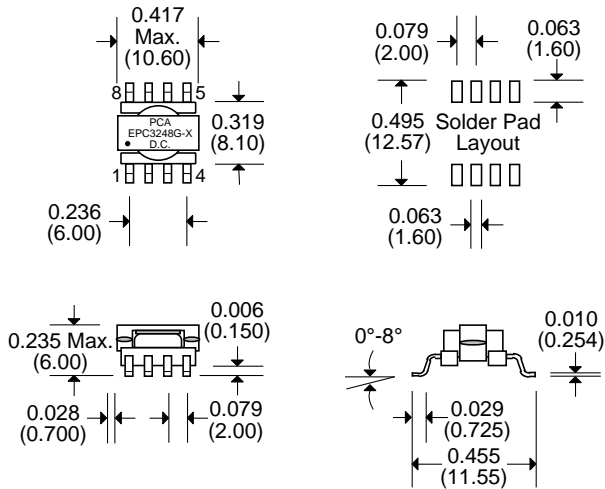
Schematic 3



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

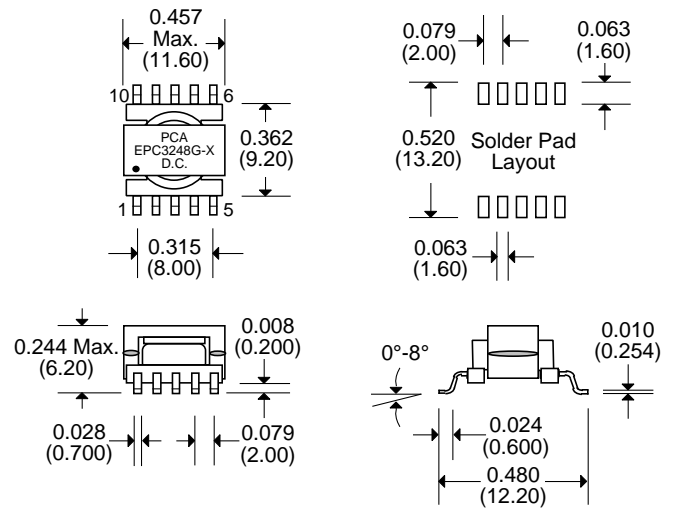
# Power Over Ethernet (PoE/PD) Flyback Transformer EPC3248G-X & EPC3248G-X-LF

## Package ER9.5



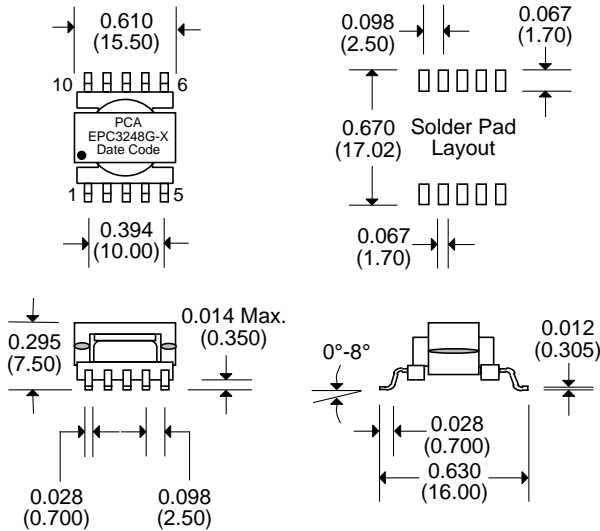
|                       |                       |
|-----------------------|-----------------------|
| Packaging Information | Tube: 52 pcs/tube     |
|                       | T/R: 600 pcs/13" reel |

## Package ER11



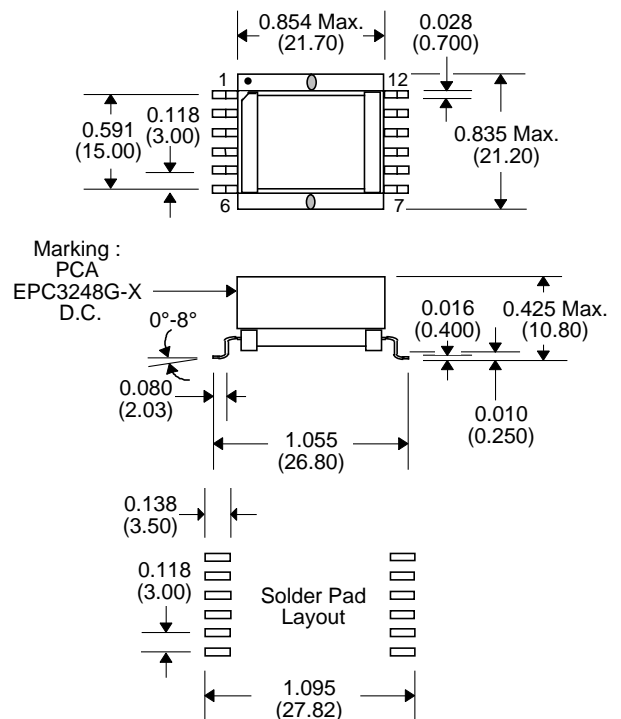
|                       |                       |
|-----------------------|-----------------------|
| Packaging Information | Tube: 44 pcs/tube     |
|                       | T/R: 400 pcs/13" reel |

## Package ER14.5



|                       |                       |
|-----------------------|-----------------------|
| Packaging Information | Tube: 36 pcs/tube     |
|                       | T/R: 350 pcs/13" reel |

## Package EFD20 (Reserved for Class 4 PoE+)



|                       |                   |
|-----------------------|-------------------|
| Packaging Information | Tray: 40 pcs/tray |
|-----------------------|-------------------|

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