

# HALO **13W, 3.3Vout, Power Transformers (EFD15)** Power Over Ethernet, DC/DC Converter

ELECTRONICS, INC.

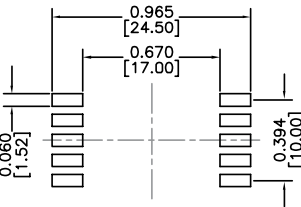
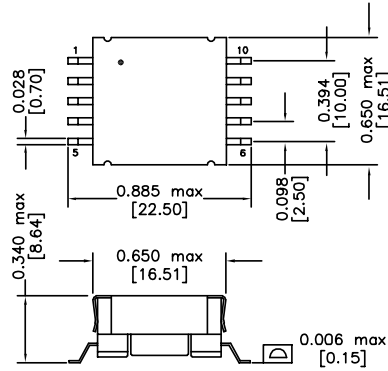
HALO Electronics offers a broad line of power transformers designed for fly-back DC/DC converters used in Power over Ethernet (PoE) applications. These industrial temperature range transformers are UL recognized and are fully compliant to IEEE802.3af requirements for isolation and power ratings. This standard series is LEAD-free and RoHS compliant. Please contact your nearest HALO representative for custom designs.



**13W, 3.3Vout, Power Transformers (EFD15)**  
**Power Over Ethernet, DC/DC Converter**

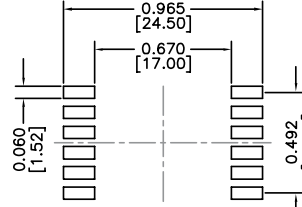
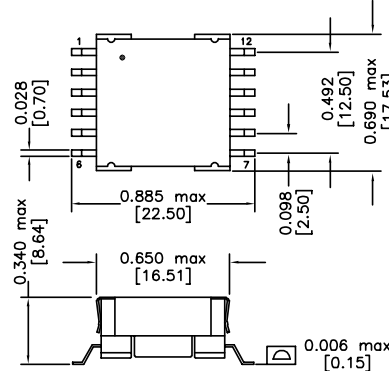
## MECHANICAL DIMENSIONS

### PACKAGE A



RECOMMENDED SOLDER PAD DIMENSIONS

### PACKAGE B



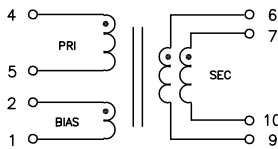
RECOMMENDED SOLDER PAD DIMENSIONS



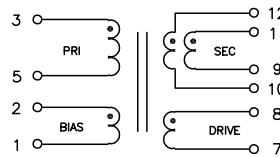
DIMENSIONS: Inch [mm]

TOLERANCES: 0.006 inch if not specified

### SCHEMATIC A



### SCHEMATIC B



Electrical Specifications @ 25 °C

Isolation Voltage (PRI – SEC): 1,500Vrms

Operating Temp: -40 to +85 °C



| Part Number       | Turns Ratio         | DCR (mΩ max)               | PRI OCL  | PRI LL   | PKG/  | IC       |
|-------------------|---------------------|----------------------------|----------|----------|-------|----------|
|                   | PRI:BIAS:SEC:DRV    | PRI/BIAS/SEC/DRV (μH ±10%) | (μH Max) | (μH Max) | SCHE. | P/N      |
| TGP13-S004EFD15LF | 1:0.208:0.083       | 520/400/10                 | 145      | 5        | A     | LTC4267  |
| TGP13-S008EFD15LF | 1: 0.500:0.167      | 150/400/10                 | 33       | 1        | A     | LM5072   |
| TGP13-S012EFD15LF | 1:0.500:0.150:0.275 | 520/760/20/400             | 160      | 2        | B     | TPS23750 |

# HALO 13W, 3.3Vout, Power Transformers (EP13) Power Over Ethernet, DC/DC Converter

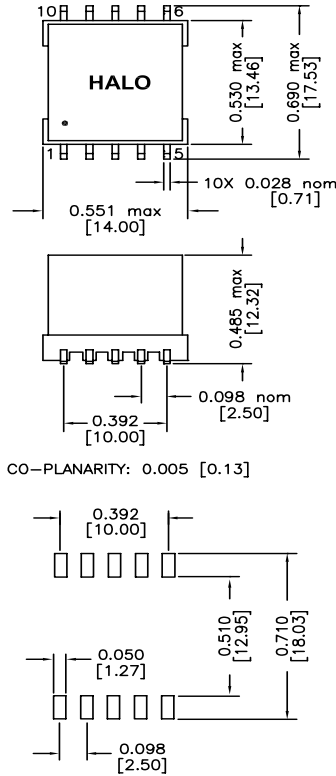
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13W, 3.3Vout, Power Transformers (EP13)  
Power Over Ethernet, DC/DC Converter

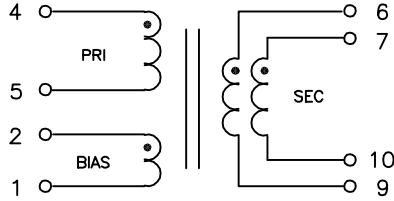
## MECHANICAL DIMENSIONS



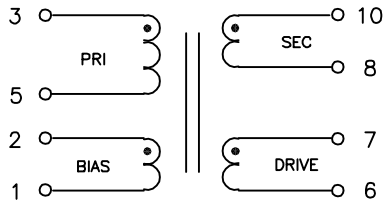
RECOMMENDED SOLDER PAD DIMENSIONS

DIMENSIONS: Inch [mm]  
 TOLERANCES: 0.006 inch if not specified

## SCHEMATIC A



## SCHEMATIC B



Electrical Specifications @ 25 °C  
 Isolation Voltage (PRI – SEC): 1,500Vrms  
 Operating Temp: -40 to +85 °C



| Part Number      | Turns Ratio         | DCR (mΩ max)    | PRI OCL   | PRI LL   | IC         |
|------------------|---------------------|-----------------|-----------|----------|------------|
|                  | PRI:AUX:SEC:DRV     | PRI/AUX/SEC/DRV | (μH ±10%) | (μH Max) | SCHE. P/N  |
| TGP13-S003EP13LF | 1:0.208:0.083       | 500/400/15      | 145       | 5        | A LTC4267  |
| TGP13-S007EP13LF | 1: 0.500:0.167      | 100/400/12      | 33        | 1        | A LM5072   |
| TGP13-S011EP13LF | 1:0.500:0.150:0.275 | 450/700/30/400  | 160       | 3        | B TPS23750 |

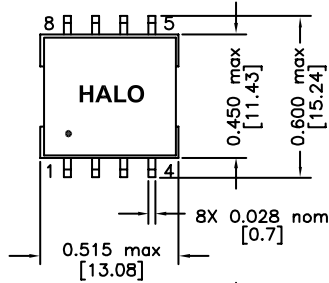
# HALO ELECTRONICS, INC. 7W, 3.3Vout, Power Transformers (EP10) Power Over Ethernet, DC/DC Converter

HALO Electronics offers a broad line of power transformers designed for fly-back DC/DC converters used in Power over Ethernet (PoE) applications. These industrial temperature range transformers are UL recognized and are fully compliant to IEEE802.3af requirements for isolation and power ratings. This standard series is LEAD-free and RoHS compliant. Please contact your nearest HALO representative for custom designs.



7W, 3.3Vout, Power Transformers (EP10)  
Power Over Ethernet, DC/DC Converter

## MECHANICAL DIMENSIONS



CO-PLANARITY: 0.005 [0.13]



RECOMMENDED SOLDER PAD DIMENSIONS

DIMENSIONS: Inch [mm]  
 TOLERANCES: 0.006 inch if not specified

Electrical Specifications @ 25 °C

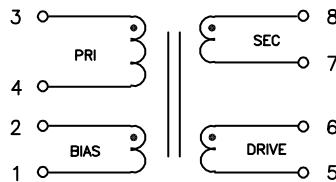
Isolation Voltage (PRI – SEC): 1,500Vrms  
 Operating Temp: -40 to +85 °C



## SCHEMATIC A



## SCHEMATIC B



| Part Number     | Turns Ratio         | DCR (mΩ max)    | PRI OCL   | PRI LL   | IC         |
|-----------------|---------------------|-----------------|-----------|----------|------------|
|                 | PRI:AUX:SEC:DRV     | PRI/AUX/SEC/DRV | (μH ±10%) | (μH Max) | SCHE. P/N  |
| TGP7-S002EP10LF | 1:0.208:0.083       | 450/400/12      | 145       | 4        | A LTC4267  |
| TGP7-S006EP10LF | 1:0.500:0.167       | 100/400/10      | 33        | 1        | A LM5072   |
| TGP7-S010EP10LF | 1:0.500:0.150:0.275 | 450/700/30/400  | 160       | 3        | B TPS23750 |