# 2.5G \& 5G Transformers 

SMD 2.5G/5G BASE-T Single Port Ethernet Isolation Modules
ELECTRONICS, INC.


## Product Features: <br> - 2.5G/5GBASE-T Ethernet Transformer/CMR <br> - IEEE802.3bz/af/at/bt Compliant <br> - 4PPoE - 4 Pair Power over Ethernet <br> - UL/EN60950 Recognized <br> - 100\% Electrical Testing <br> - 1500Vrms Hi-Pot <br> - Designed for PSE and PD PoE Applications

| Part Number | Data Rate | Total Power ${ }^{1}$ | Current Per Pair | Operating Temp | DCR (max) | Package | Max Height inch [mm] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TG2G-S102NJLF | 2.5G | 30W | 350 mA | 0 to $+70^{\circ} \mathrm{C}$ | $0.6 \Omega$ | NJ | 0.250 [6.35] |
| TG2G-E102NJLF | 2.5G | 30W | 350 mA | -40 to $+85^{\circ} \mathrm{C}$ | $0.6 \Omega$ | NJ | 0.250 [6.35] |
| TG2G-S12NZLF | 2.5 G | 30W | 350 mA | 0 to $+70^{\circ} \mathrm{C}$ | $0.6 \Omega$ | NZ | 0.230 [5.84] |
| TG2G-E12NZLF | 2.5 G | 30W | 350 mA | -40 to $+85^{\circ} \mathrm{C}$ | $0.6 \Omega$ | NZ | 0.230 [5.84] |
| TG2G-HP6NZLF | 2.5 G | 60W | 600 mA | 0 to $+70^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ | 0.230 [5.84] |
| TG2G-HPE6NZLF | 2.5 G | 60W | 600 mA | -40 to $+85^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ | 0.230 [5.84] |
| TG2G-HP10NZ5LF | 2.5 G | 90W | 1A | 0 to $+70^{\circ} \mathrm{C}$ | $0.4 \Omega$ | NZ5 | 0.255 [6.48] |
| TG2G-HPE10NZ5LF | 2.5 G | 90W | 1A | -40 to $+85^{\circ} \mathrm{C}$ | $0.4 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-S12NZ5LF | 5G | 30W | 350 mA | 0 to $+70^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-E12NZ5LF | 5G | 30W | 350 mA | -40 to $+85^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-HP6NZ5LF | 5G | 60W | 600 mA | 0 to $+70^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-HPE6NZ5LF | 5G | 60W | 600 mA | -40 to $+85^{\circ} \mathrm{C}$ | $0.5 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-HP10NZ5LF | 5G | 90W | 1 A | 0 to $+70^{\circ} \mathrm{C}$ | $0.4 \Omega$ | NZ5 | 0.255 [6.48] |
| TG5G-HPE10NZ5LF | 5G | 90W | 1A | -40 to $+85^{\circ} \mathrm{C}$ | $0.4 \Omega$ | NZ5 | 0.255 [6.48] |

## Notes:

${ }^{1}$ Power rating reduced to half when using only two pairs for power as in 802.3af/802.3at applications.

- Please contact the factory or representative for individual datasheets or additional information.
- Footprint interchangeable 10G parts available at https://www.haloelectronics.com/pdf/discrete-10gbaset.pdf


## Circuit Diagram





Recommended Solder Pad Layout

## Mechanical - NZ \& NZ5 Package




Recommended Solder Pad Layout

Patented Construction
US Patent Numbers:
5,656,985 6,297,721 B1
6,297,720 B1 6,320,489 B1
6,344,785 B1 6,662.431 B1

Dimensions: inch [mm] Co-Planarity: 0.004 [0.10]


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