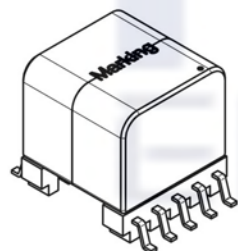
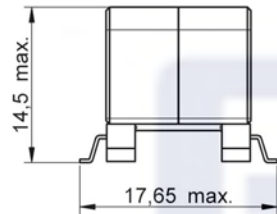
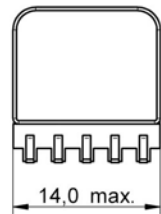
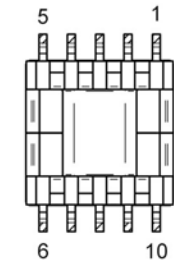


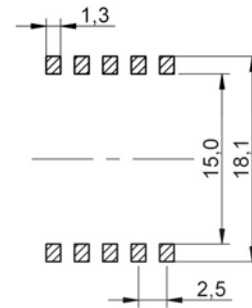


A Dimensions: [mm]



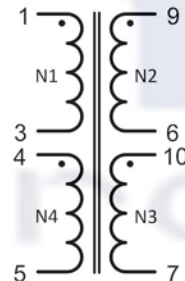
Scale - 1,5:1

B Recommended land pattern: [mm]



Scale - 1,5:1

C Schematic:



D Electrical Properties:

| Properties | Test conditions | | Value | Unit | Tol. |
|-------------------------|-------------------------|-----------|---------|--------|------|
| Inductance | 100 kHz/ 100 mV | L | 54 | μH | ±10% |
| Turns ratio | | n | 8:1:1:3 | | ±3% |
| Saturation current | $I_{\Delta L/L} < 20\%$ | I_{sat} | 3.2 | A | typ. |
| DC Resistance 1 | @ 20°C | R_{DC1} | 70 | mΩ | max. |
| DC Resistance 2 | @ 20°C | R_{DC2} | 7 | mΩ | max. |
| DC Resistance 3 | @ 20°C | R_{DC3} | 7 | mΩ | max. |
| DC Resistance 4 | @ 20°C | R_{DC4} | 100 | mΩ | max. |
| Leakage inductance | 100 kHz/ 100 mV | L_S | 0.8 | μH | max. |
| Insulation test voltage | prim => sec | U_T | 1500 | V (AC) | |
| Insulation test voltage | N2 => N3, N1 => N4 | U_T | 500 | V (AC) | |

E General information:

It is recommended that the temperature of the part does not exceed +125°C under worst case conditions.

- Storage Temperature: -20°C to 60°C
- Operating Temperature: -40°C to 125°C
- Test conditions of Electrical Properties: 20°C, 33% RH if not specified differently

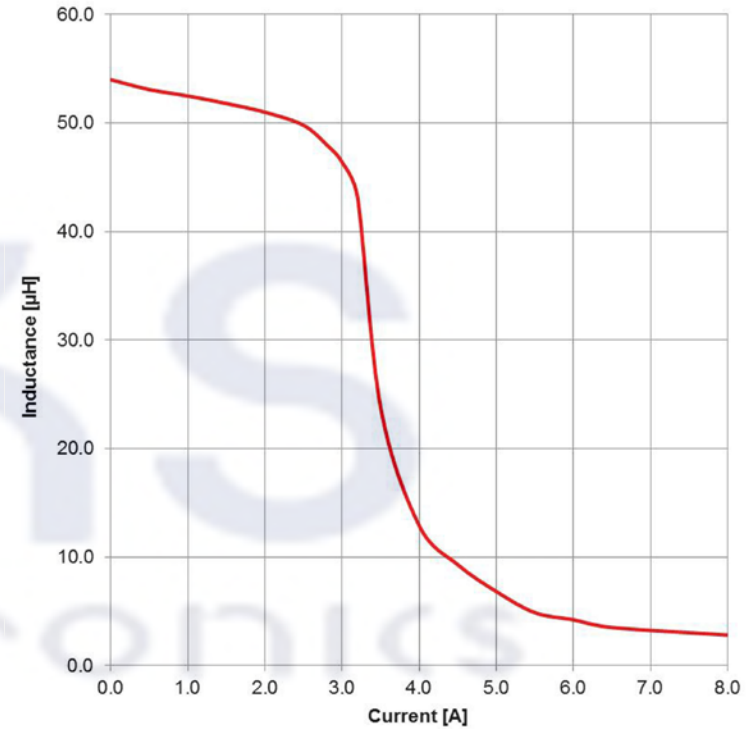
| | | | | | | | |
|------------|--|--|--|---|---|--|------|
| | | | | Projection | DESCRIPTION | | |
| | | | | | Power over Ethernet High Power Transformer | | |
| | | | | | | | |
| | | | | Shaanxi FKS Electronic Parts Import&Export Co.,Ltd. FKS(Qi'an) Electronic Technology Co.,Ltd. Address: B1 Building,Western Cloud Valley,Fengxi New Town, Xixian New Area,Xi'an City, Shaanxi Province,China. Tel: +86-29-8868 5333 Fax: +86-29-8868 0913 | Order.- No. | | SIZE |
| 2014-08-04 | | | | FKS749119533 | A4 | | |
| DATE | | | | | Size: EPQ13 | | |



D2 Application Properties:

| Properties | | Value | Unit |
|------------------------|--------------|---------|--------|
| Input voltage (N1) | U_i | 33-57 | V (DC) |
| Output voltage 1 (N2) | U_{O1} | 3.3 | V |
| Output current 1 (N2) | I_{O1} | 3.5 | A |
| Output voltage 2 (N3) | U_{O2} | 3.3 | V |
| Output current 2 (N3) | I_{O2} | 3.5 | A |
| Auxiliary voltage (N4) | U_{aux} | 10 | V |
| Switching frequency | f_{switch} | 200-400 | kHz |

F1 Typical Inductance vs. Current Characteristics:

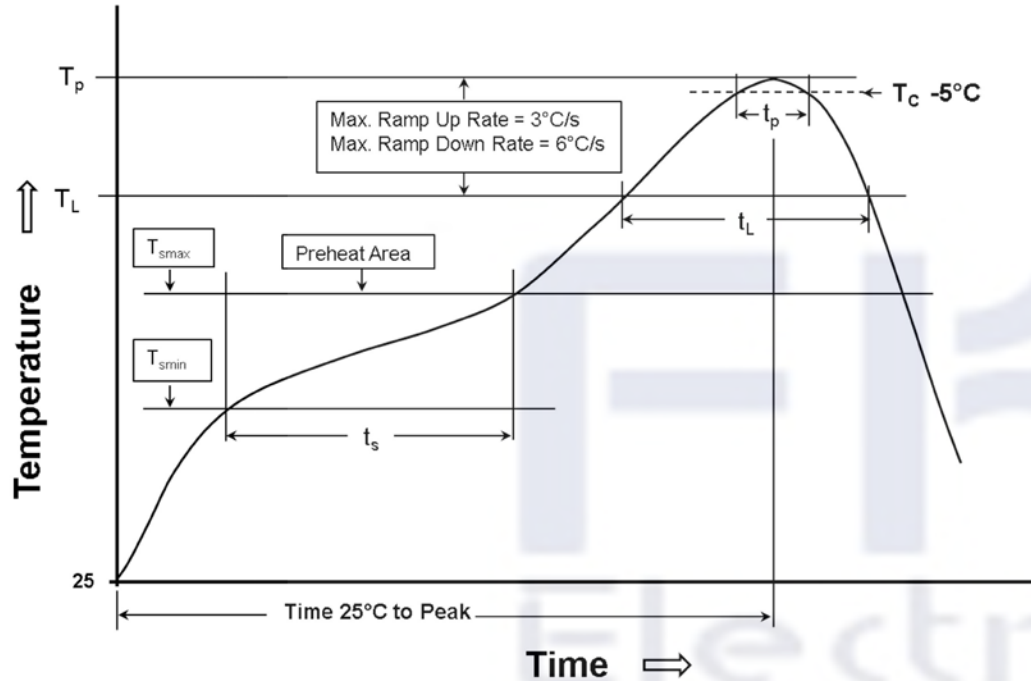


| | | | | | |
|--|--|--|--|--|---|
| | | | | Projection | DESCRIPTION |
| | | | | | Power over Ethernet High Power Transformer |
| | | | | Shaanxi FKS Electronic Parts Import&Export Co.,Ltd. FKS(X'ian) Electronic Technology Co.,Ltd. Address: B1 Building,Western Cloud Valley,Fengxi New Town, Xi'an New Area,Xi'an City, Shaanxi Province,China. Tel: +86-29-8868 5333 Fax: +86-29-8868 0913 | Order.- No. FKS749119533 |
| | | | | | |
| | | | | 2014-08-04 | SIZE A4 |
| | | | | DATE | Size: EPQ13 |



H Soldering Specifications:

H1: Classification Reflow Profile for SMT components:



H2: Classification Reflow Profiles

| Profile Feature | Pb-Free Assembly |
|---|----------------------------------|
| Preheat - Temperature Min (T_{smin}) - Temperature Max (T_{smax}) - Time (t_s) from (T_{smin} to T_{smax}) | 150°C 200°C 60-120 seconds |
| Ramp-up rate (T_L to T_p) | 3°C/ second max. |
| Liquidous temperature (T_L) Time (t_L) maintained above T_L | 217°C 60-150 seconds |
| Peak package body temperature (T_p) | See Table H3 |
| Time within 5°C of actual peak temperature (t_p) | 20-30 seconds |
| Ramp-down rate (T_p to T_L) | 6°C/ second max. |
| Time 25°C to peak temperature | 8 minutes max. |

refer to IPC/JEDEC J-STD-020D

H3: Package Classification Reflow Temperature

| | Package Thickness | Volume mm ³ <350 | Volume mm ³ 350 - 2000 | Volume mm ³ >2000 |
|------------------|-------------------|-----------------------------|-----------------------------------|------------------------------|
| PB-Free Assembly | < 1.6 mm | 260°C | 260°C | 260°C |
| PB-Free Assembly | 1.6 - 2.5 mm | 260°C | 250°C | 245°C |
| PB-Free Assembly | ≥ 2.5 mm | 250°C | 245°C | 245°C |

refer to IPC/JEDEC J-STD-020D

| | | | | | |
|--|--|--|--|--|---|
| | | | | Projection | DESCRIPTION |
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| | | | | 2014-08-04 | SIZE A4 |
| | | | | DATE | Size: EPQ13 |