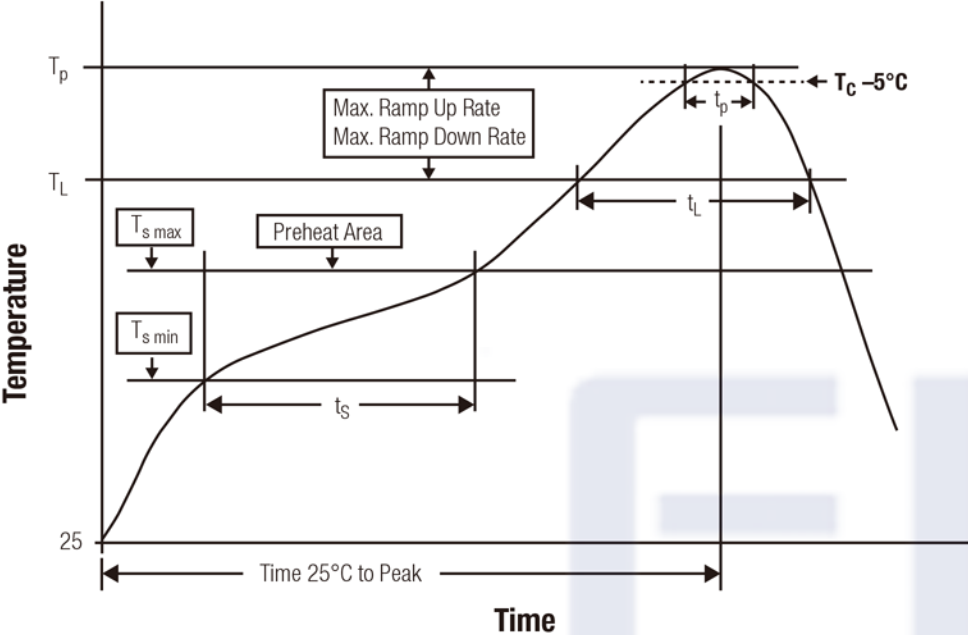


Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

| Profile Feature                                      |              | Value             |
|------------------------------------------------------|--------------|-------------------|
| Preheat Temperature Min                              | $T_{s\ min}$ | 150 °C            |
| Preheat Temperature Max                              | $T_{s\ max}$ | 200 °C            |
| Preheat Time $t_s$ from $T_{s\ min}$ to $T_{s\ max}$ | $t_s$        | 60 - 120 seconds  |
| Ramp-up Rate ( $T_L$ to $T_p$ )                      |              | 3 °C/ second max. |
| Liquidous Temperature                                | $T_L$        | 217 °C            |
| Time $t_L$ maintained above $T_L$                    | $t_L$        | 60 - 150 seconds  |
| Peak package body temperature                        | $T_p$        | see table below   |
| Time within 5°C of actual peak tempreature           | $t_p$        | 20 - 30 seconds   |
| Ramp-down Rate ( $T_L$ to $T_p$ )                    |              | 6 °C/ second max. |
| Time 25°C to peak temperature                        |              | 8 minutes max.    |

refer to IPC/ JEDEC J-STD-020E

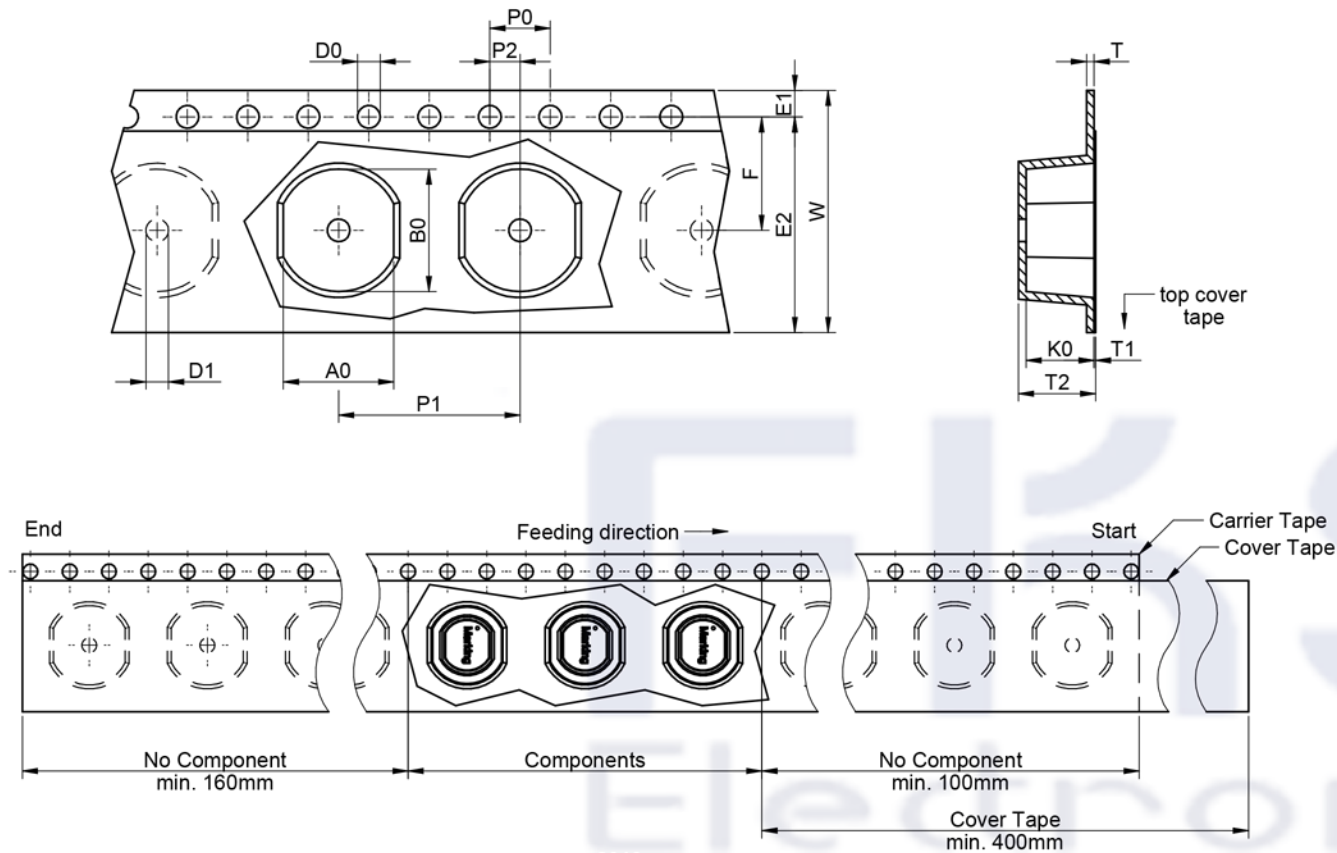
Package Classification Reflow Temperature:

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

refer to IPC/ JEDEC J-STD-020E

|                                                                                                                                                                                                                                                                                                                                                                       |  |                                          |                                      |                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|--------------------------------------|-----------------------------------|
| <div><div><div></div><div></div><div></div><div></div></div></div>                                                                                                                                                                                                                                                                                                    |  | DATE (YYYY-MM-DD)<br>2019-10-14          | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION METHOD<br>             |
| <div><div><div></div><div></div><div><div>Shaanxi FKS Electronic Parts Import&amp;Export Co.,Ltd.<br/>Address:Building B1,The West Cloud Valley, Fengxi New City,<br/>Xixian New Area,Xianyang City,Shaanxi Province,China.<br/>Tel:0086 29 8868 5333 Fax:0086 29 8868 0913<br/><a href="http://www.fks-tech.com">Http://www.fks-tech.com</a></div></div></div></div> |  | DESCRIPTION<br><b>SMT Power Inductor</b> |                                      | ORDER CODE<br><b>FKS784787100</b> |
| SIZE/TYPE<br>7850                                                                                                                                                                                                                                                                                                                                                     |  | STATUS<br>Valid                          |                                      |                                   |

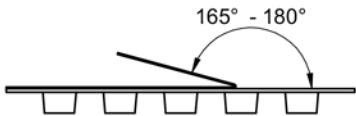
Packaging Specification - Tape and Reel: [mm]



Packaging is referred to the international standard IEC 60286 -3:2013

|           | A0   | B0   | W    | T     | T1   | T2   | K0   | P0   | P1   | P2    | D0        | D1   | E1   | E2    | F    | Tape Type 2a | VPE / packaging unit |
|-----------|------|------|------|-------|------|------|------|------|------|-------|-----------|------|------|-------|------|--------------|----------------------|
| tolerance | typ. | typ. | ±0.3 | typ.  | typ. | typ. | typ. | ±0.1 | ±0.1 | ±0.1  | +0.1/-0.0 | typ. | ±0.1 | min.  | ±0.1 |              | pcs.                 |
| size      | 7850 | 7,30 | 8,10 | 16,00 | 0,50 | 0,05 | 5,50 | 4,90 | 4,00 | 12,00 | 2,00      | 1,50 | 1,75 | 14,25 | 7,50 | Polystyrene  | 1000                 |

|            | A    | B     | C    | D    | N    | W1    | W2/W3 |
|------------|------|-------|------|------|------|-------|-------|
| tolerance  | ±2.0 | ±0.5  | ±0.5 | ±0.5 | ±0.5 | +0.4  | ±0.5  |
| tape width | 16mm | 330.0 | 2.0  | 13.0 | 21.0 | 100.0 | 16.4  |



|            | Pull-of force |
|------------|---------------|
| Tape width | 16 mm         |
|            | 0,1 N - 1,3 N |

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DATE (YYYY-MM-DD)  
2019-10-14

GENERAL TOLERANCE  
DIN ISO 2768-1m

PROJECTION METHOD

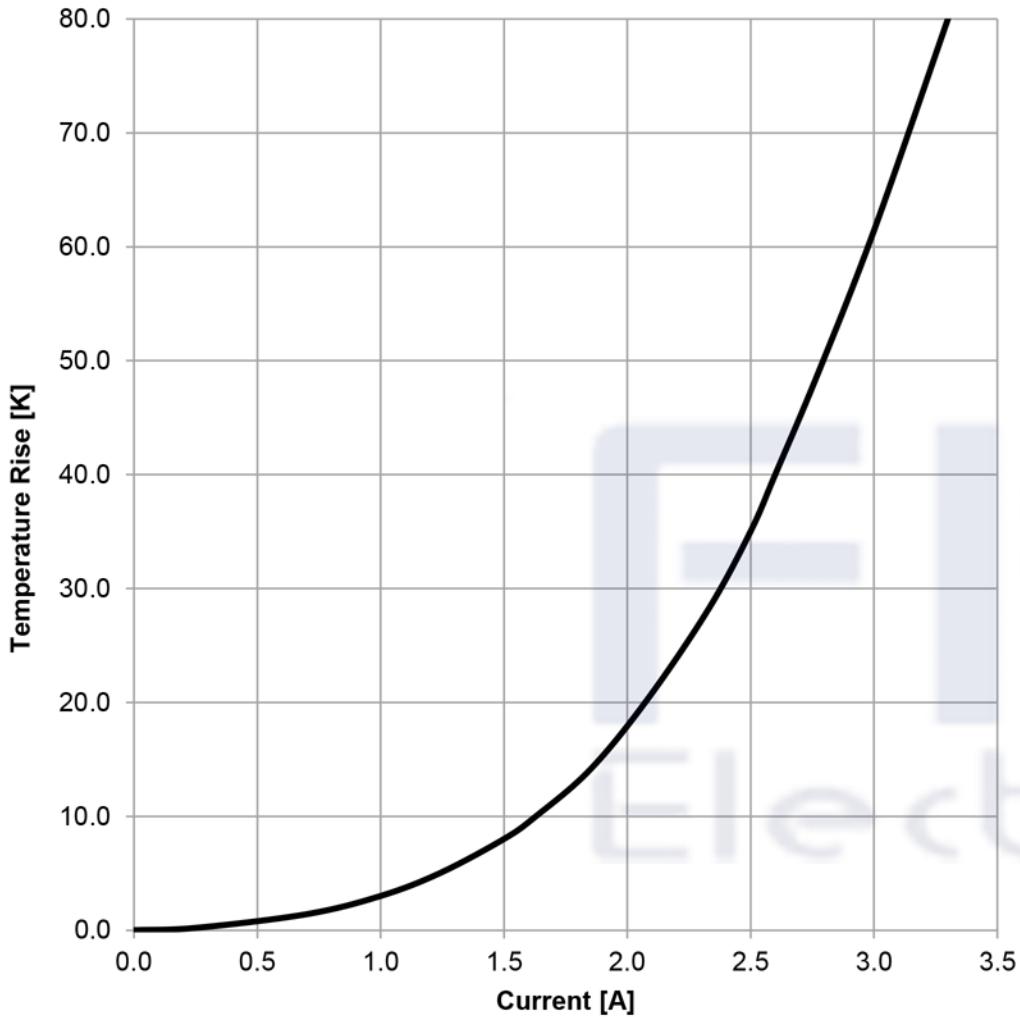
DESCRIPTION  
**SMT Power Inductor**

ORDER CODE  
**FKS784787100**

SIZE/TYPE  
7850

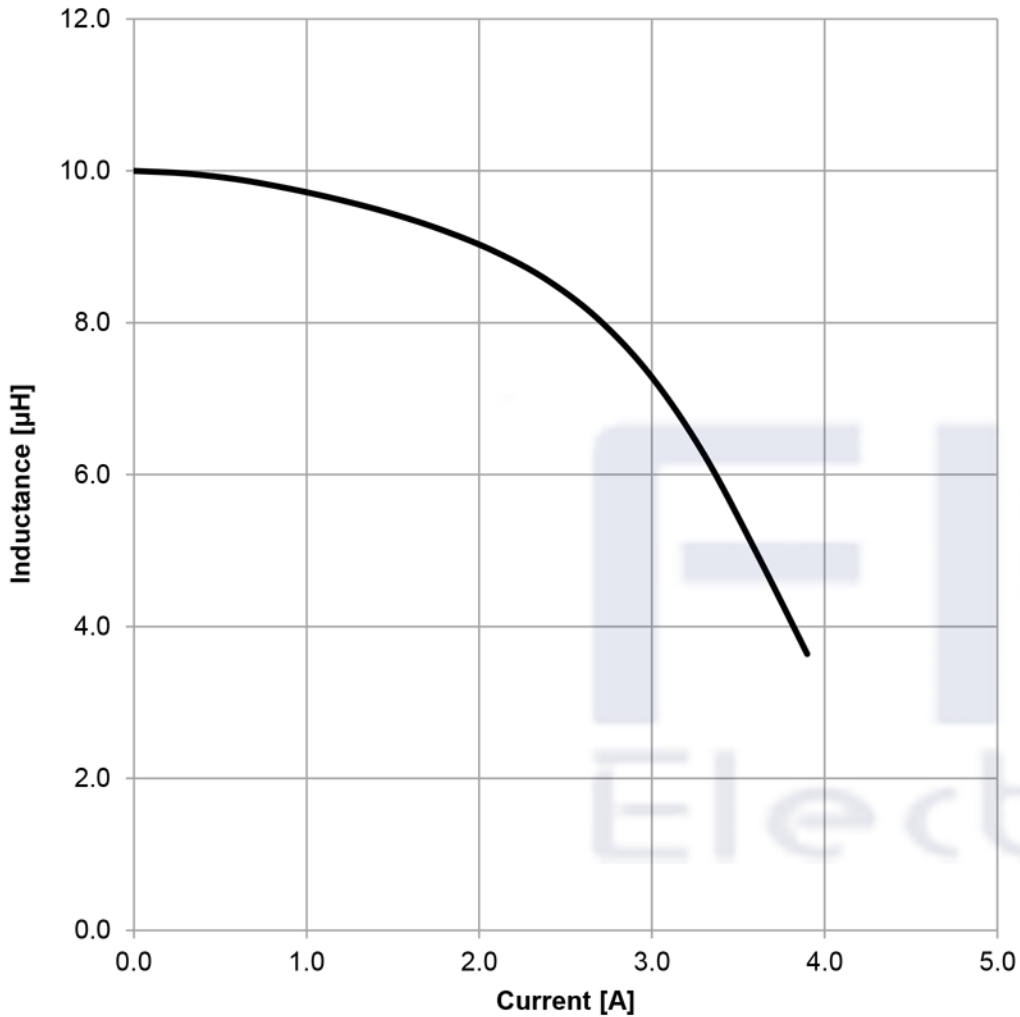
STATUS  
Valid

Typical Temperature Rise vs. Current Characteristics:

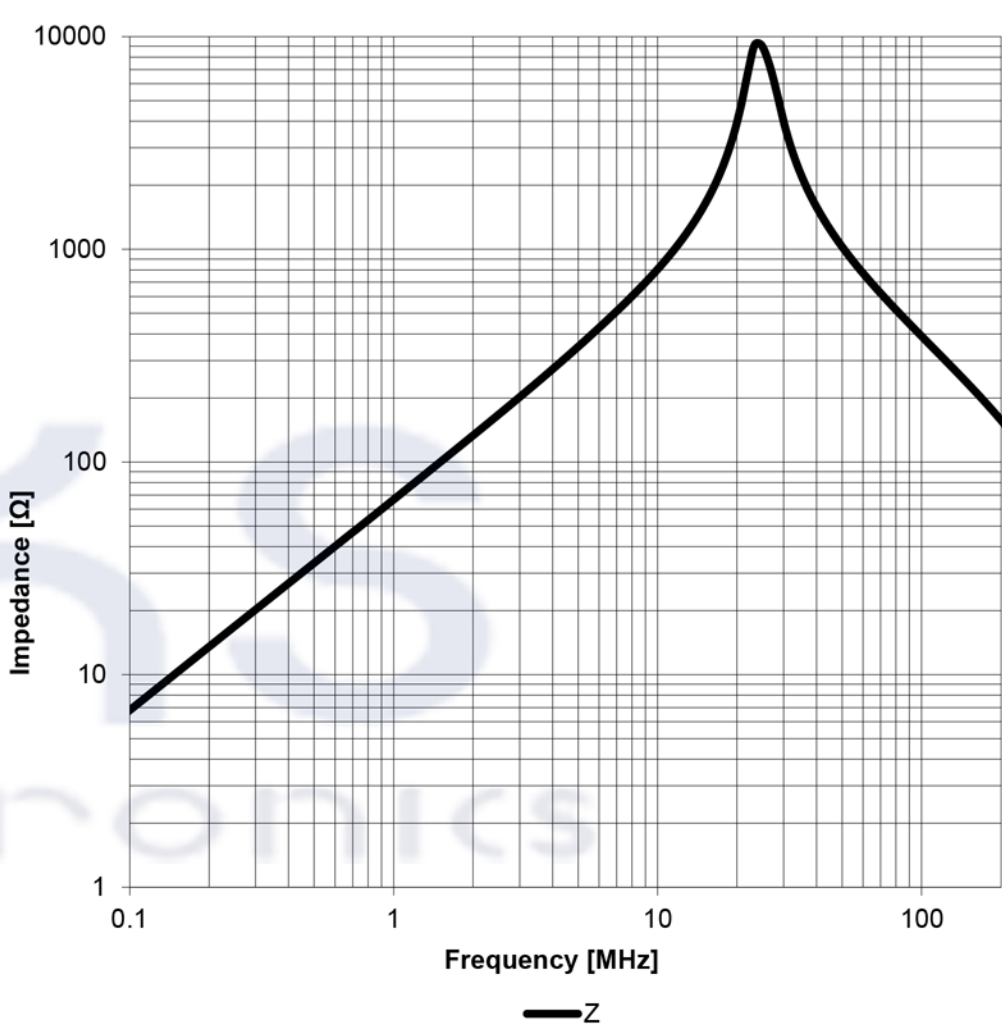


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |                                          |                                      |                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <div><div><div>RoHS<br/>COMPLIANT</div></div><div><div>REACH<br/>COMPLIANT</div></div><div><div>HALOGEN<br/>FREE</div></div><div><div>AEC<br/>Q200</div></div></div>                                            |  |  | DATE (YYYY-MM-DD)<br>2019-10-14          | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION<br>METHOD<br> |
| <div><div></div><div></div><div><div>Shaanxi FKS Electronic Parts Import&amp;Export Co.,Ltd.</div><div>Address:Building B1,The West Cloud Valley, Fengxi New City,</div><div>Xixian New Area,Xianyang City,Shaanxi Province,China.</div><div>Tel:0086 29 8868 5333      Fax:0086 29 8868 0913</div><div><a href="http://www.fks-tech.com">Http://www.fks-tech.com</a></div></div></div> |  |  | DESCRIPTION<br><b>SMT Power Inductor</b> |                                      | ORDER CODE<br><b>FKS784787100</b>                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  | SIZE/TYPE<br>7850                        |                                      | STATUS<br>Valid                                                                                               |

Typical Inductance vs. Current Characteristics:

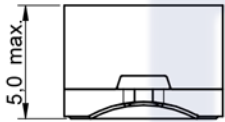
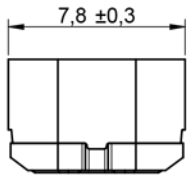
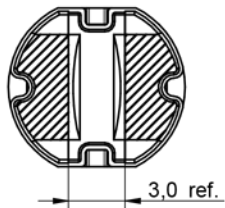


Typical Impedance Characteristics:



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                   |                                      |                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <div><div><div>RoHS<br/>COMPLIANT</div></div><div><div>REACH<br/>COMPLIANT</div></div><div><div>HALOGEN<br/>FREE</div></div><div><div>AEC<br/>Q200</div></div></div> <div><div></div><div><div>Shaanxi FKS Electronic Parts Import&amp;Export Co.,Ltd.</div><div>Address:Building B1,The West Cloud Valley, Fengxi New City,<br/>Xixian New Area,Xianyang City,Shaanxi Province,China.</div><div>Tel:0086 29 8868 5333 Fax:0086 29 8868 0913</div><div><a href="http://www.fks-tech.com">Http://www.fks-tech.com</a></div></div></div> |  | DATE (YYYY-MM-DD)<br>2019-10-14   | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION<br>METHOD<br> |
| DESCRIPTION<br><b>SMT Power Inductor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | ORDER CODE<br><b>FKS784787100</b> |                                      |                                                                                                               |
| SIZE/TYPE<br>7850                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | STATUS<br>Valid                   |                                      |                                                                                                               |

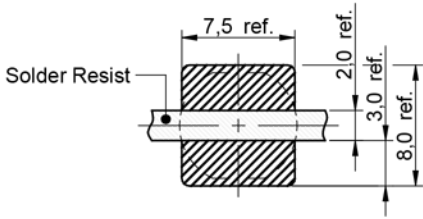
Dimensions: [mm]



Scale - 2:1

|                  |                       |
|------------------|-----------------------|
| Start of Winding | •                     |
| Marking          | 100 (Inductance Code) |

Recommended Land Pattern: [mm]



Scale - 2:1

Schematic:



Electrical Properties:

| Properties              |                  | Test conditions | Value | Unit | Tol. |
|-------------------------|------------------|-----------------|-------|------|------|
| Inductance              | L                | 100 kHz/ 250 mV | 10    | µH   | ±25% |
| Rated Current           | I <sub>R</sub>   | ΔT = 40 K       | 2.6   | A    | max. |
| Saturation Current      | I <sub>SAT</sub> | ΔL/LI < 15 %    | 2.6   | A    | typ. |
| DC Resistance           | R <sub>DC</sub>  | @ 20 °C         | 36.5  | mΩ   | typ. |
| DC Resistance           | R <sub>DC</sub>  | @ 20 °C         | 43    | mΩ   | max. |
| Self Resonant Frequency | f <sub>res</sub> |                 | 24    | MHz  | typ. |

Certification:

|                |                                       |
|----------------|---------------------------------------|
| RoHS Approval  | Compliant [ 2011/65/EU&2015/863 ]     |
| REACH Approval | Conform or declared [ (EC)1907/2006 ] |
| Halogen Free   | Conform [ JEDEC JS709B ]              |
| Halogen Free   | Conform [ IEC 61249-2-21 ]            |

General Information:

|                                                                                                             |                     |
|-------------------------------------------------------------------------------------------------------------|---------------------|
| It is recommended that the temperature of the component does not exceed +125 °C under worst case conditions |                     |
| Ambient Temperature (referring to I <sub>R</sub> )                                                          | -50 up to +110 °C   |
| Operating Temperature                                                                                       | -50 up to +150 °C   |
| Storage Conditions (in original packaging)                                                                  | < 40 °C ; < 75 % RH |
| Moisture Sensitivity Level (MSL)                                                                            | 1                   |
| Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently                      |                     |



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