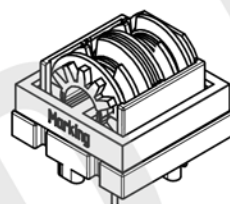
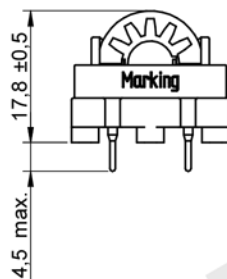
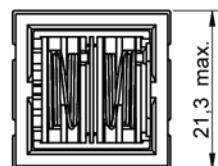
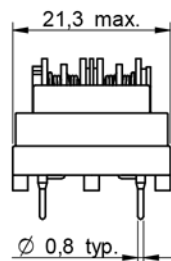
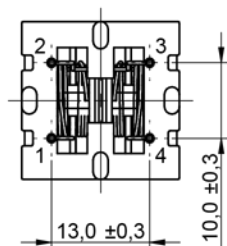


## Dimensions: [mm]

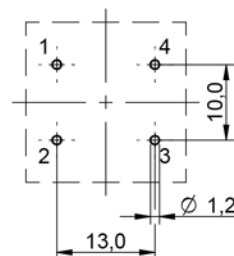


Scale - 1:1

## Product Marking:

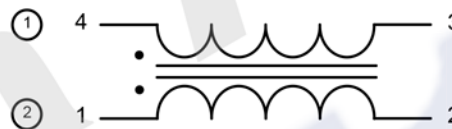
|         |            |
|---------|------------|
| Marking | 7448640396 |
|---------|------------|

## Recommended Hole Pattern: [mm]



Scale - 1:1

## Schematic:



## Electrical Properties:

| Properties              |                 | Test conditions     | Value | Unit   | Tol. |
|-------------------------|-----------------|---------------------|-------|--------|------|
| Number of windings      | N               |                     | 2     |        |      |
| Inductance              | L               | 10 kHz/ 100 mV      | 1.8   | mH     | min. |
| Inductance              | L               | 10 kHz/ 100 mV      | 2.7   | mH     | typ. |
| Rated Current           | I <sub>R</sub>  | @ 70 °C/ ΔT < 55 K  | 1.65  | A      | max. |
| DC Resistance           | R <sub>DC</sub> | @ 20 °C             | 0.15  | Ω      | ±15% |
| Rated Voltage           | V <sub>R</sub>  | 50 Hz               | 250   | V (AC) | max. |
| Insulation Test Voltage | V <sub>T</sub>  | 50 Hz/ 5 mA/ 2 sec. | 2000  | V (AC) |      |

## Certification:

|                         |                                       |
|-------------------------|---------------------------------------|
| RoHS Approval           | Compliant [ 2011/65/EU&2015/863 ]     |
| REACH Approval          | Conform or declared [ (EC)1907/2006 ] |
| Component Qualification | AEC-Q200 Grade 1                      |

## General Information:

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

|                                                                                        |                     |
|----------------------------------------------------------------------------------------|---------------------|
| Operating Temperature                                                                  | -40 up to +125 °C   |
| Ambient Temperature (referring to I <sub>R</sub> )                                     | -40 up to +70 °C    |
| Storage Conditions (in original packaging)                                             | < 40 °C ; < 75 % RH |
| Moisture Sensitivity Level (MSL)                                                       | 1                   |
| Temperature Rise < 55 K                                                                |                     |
| Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently |                     |



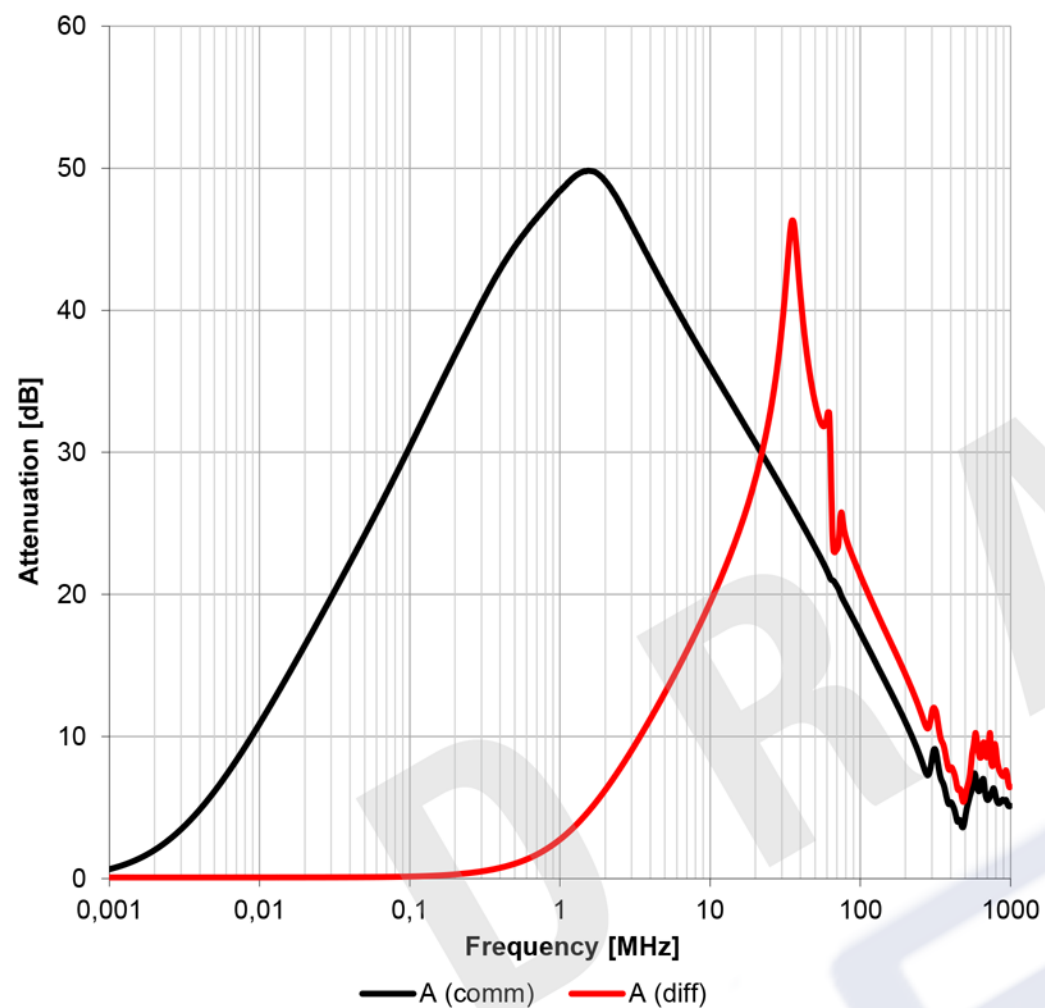
**FKS**  
Electronics



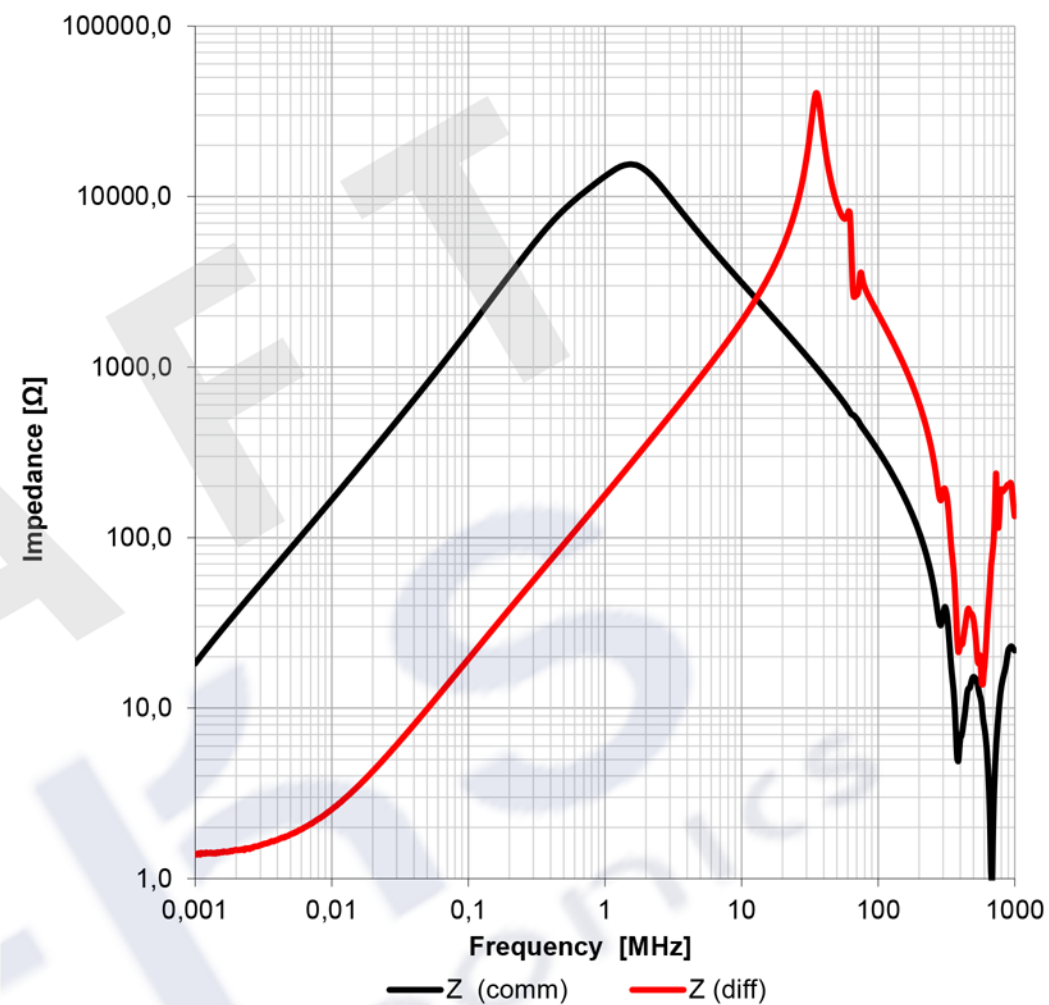
Shaanxi FKS Electronic Parts Import&Export Co.,Ltd.  
Address: Building B1, The West Cloud Valley, Fengxi New City,  
Xixian New Area, Xianyang City, Shaanxi Province, China.  
Tel: 0086 29 8868 5333 Fax: 0086 29 8868 0913  
[Http://www.fks-tech.com](http://www.fks-tech.com)

|                                                    |                                      |                                            |
|----------------------------------------------------|--------------------------------------|--------------------------------------------|
| DATE (YYYY-MM-DD)<br>2019-11-01                    | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION METHOD<br>                      |
| DESCRIPTION<br><b>Common Mode Power Line Choke</b> |                                      | ORDER CODE<br><b>FKS7448640396</b>         |
| SIZE/TYPE<br>ET20H                                 |                                      | STATUS<br>Valid from 2019-11-01 due to PCN |

## Typical Insertion Loss:



## Typical Impedance Characteristics:



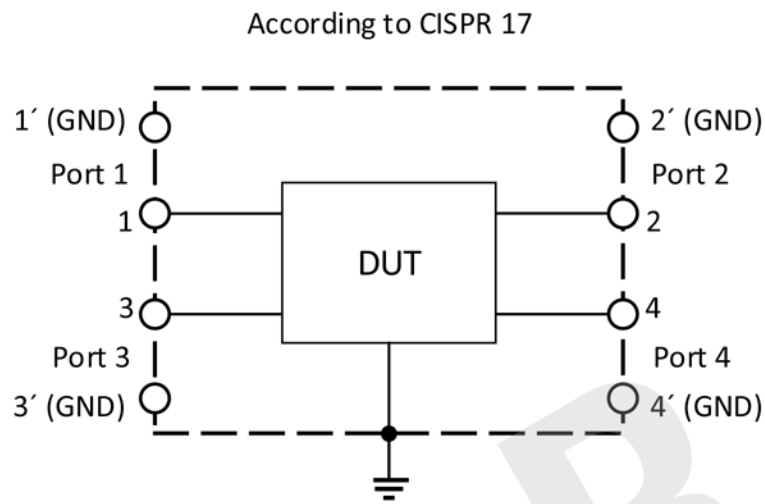
**FKS**  
Electronics



Shaanxi FKS Electronic Parts Import&Export Co.,Ltd.  
Address: Building B1, The West Cloud Valley, Fengxi New City,  
Xixian New Area, Xianyang City, Shaanxi Province, China.  
Tel: 0086 29 8868 5333 Fax: 0086 29 8868 0913  
[Http://www.fks-tech.com](http://www.fks-tech.com)

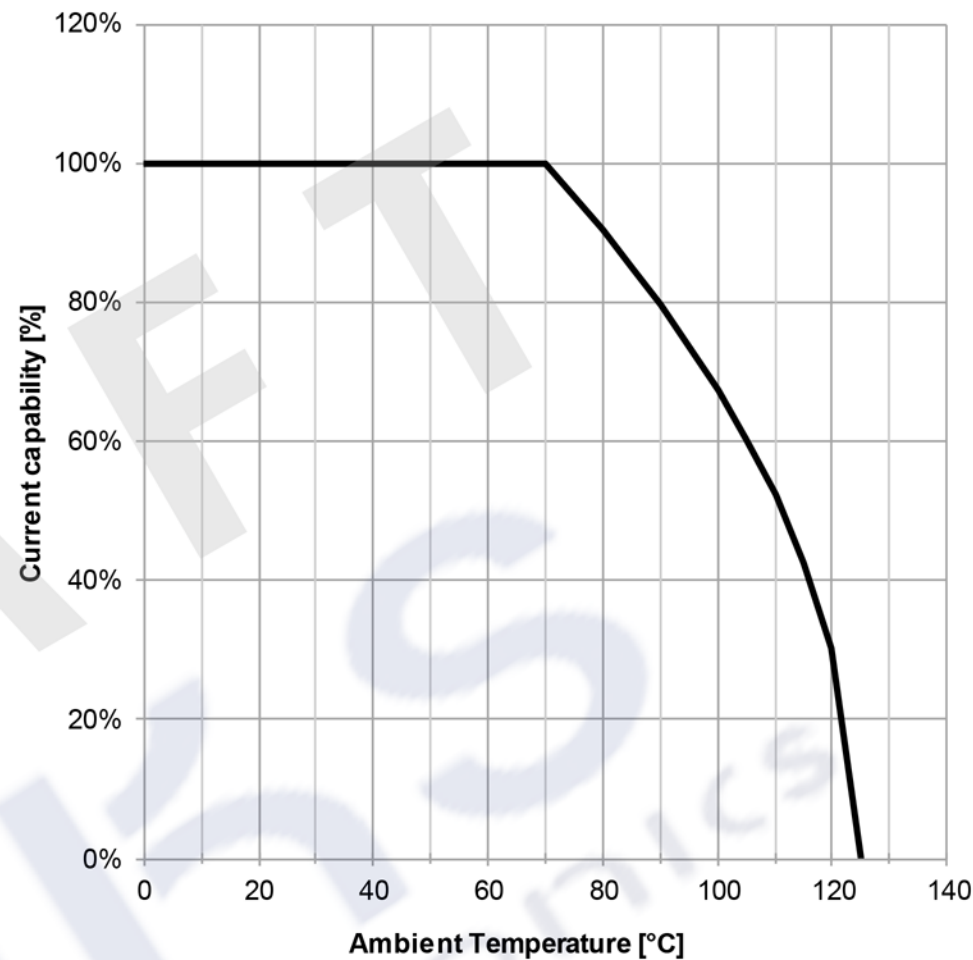
|                                                        |  |                                 |                                      |                                                                                                               |
|--------------------------------------------------------|--|---------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                                        |  | DATE (YYYY-MM-DD)<br>2019-11-01 | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION<br>METHOD<br> |
| DESCRIPTION<br><br><b>Common Mode Power Line Choke</b> |  |                                 |                                      | ORDER CODE<br><br>FKS7448640396                                                                               |
|                                                        |  |                                 |                                      |                                                                                                               |
| SIZE/TYPE<br>ET20H                                     |  |                                 |                                      | STATUS<br>Valid from 2019-11-01 due to PCN                                                                    |

Test Setup:



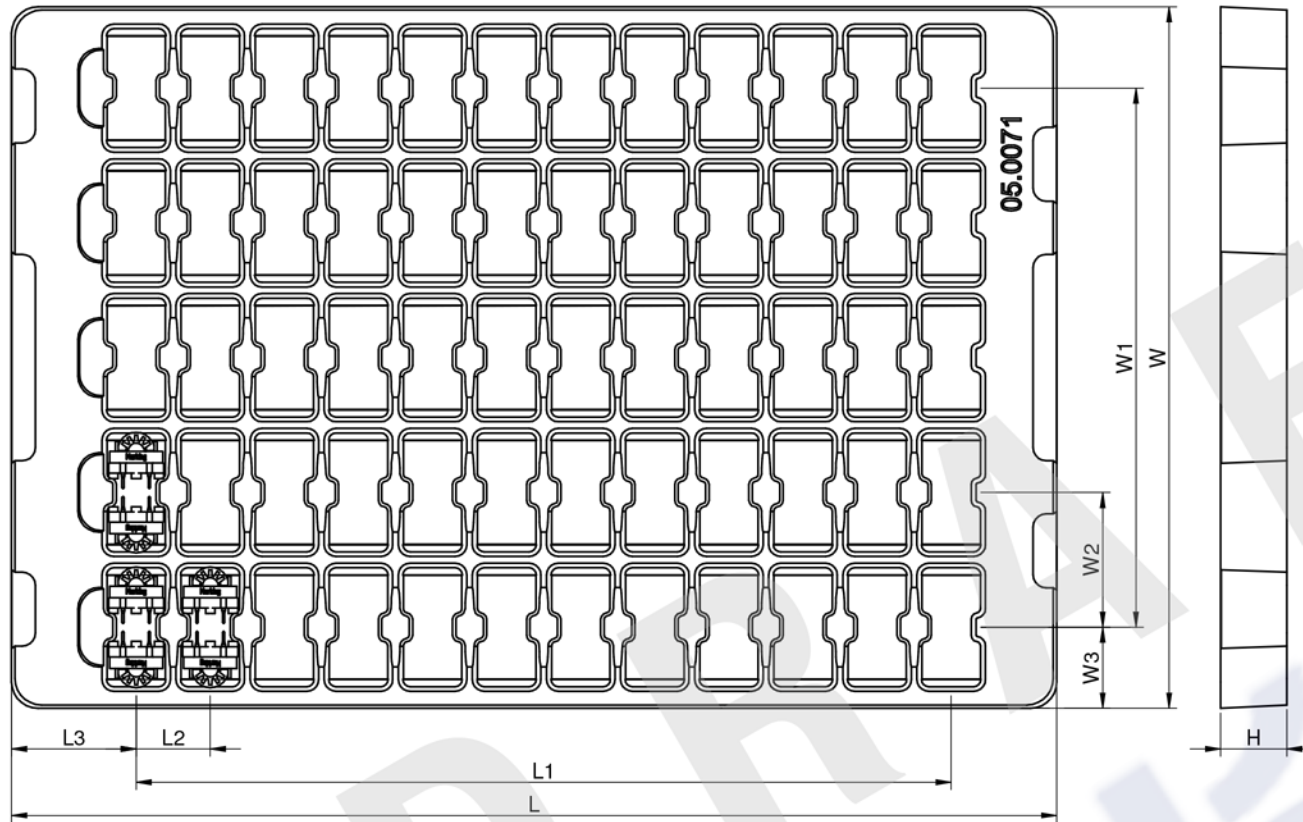
Network Analyzer: Keysight E5080A or equivalent

Derating Curve:

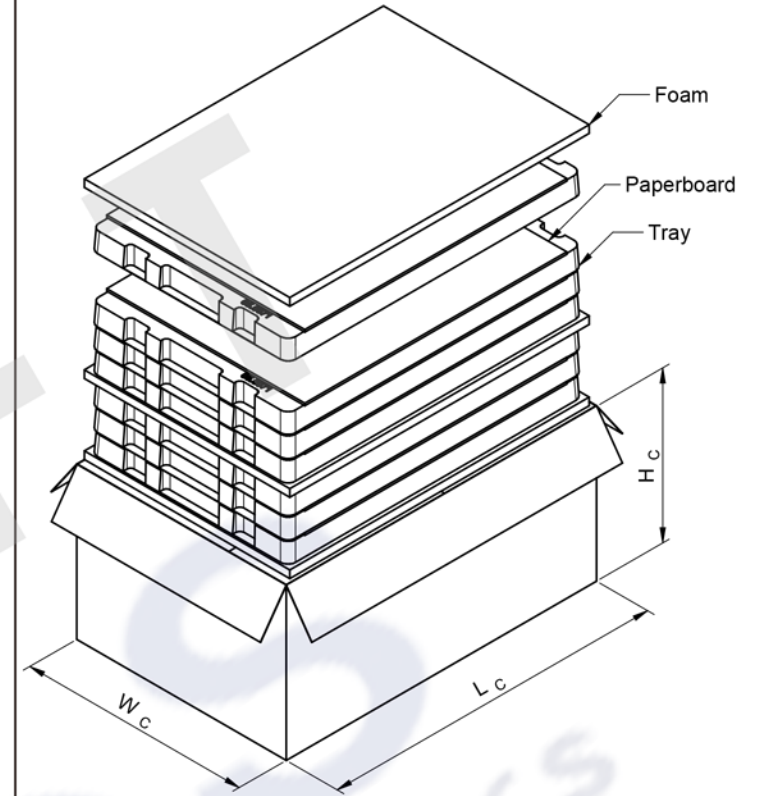


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |                                                    |  |                                            |  |                                                                                                            |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------|--|--------------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|
| <div><div><div><div></div><div>RoHS COMPLIANT</div></div><div><div></div><div>REACH COMPLIANT</div></div><div><div>AEC Q200</div><div>125 °C GRADE 1</div></div></div></div>                                                                                                                                                                                                                                                                                                                   |  |  | DATE (YYY-MM-DD)<br>2019-11-01                     |  | GENERAL TOLERANCE<br>DIN ISO 2768-1m       |  | PROJECTION METHOD<br> |  |
| <div><div><div><div></div><div>FKS Electronics</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>Common Mode Power Line Choke</b> |  |                                            |  | ORDER CODE<br>FKS7448640396                                                                                |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  | SIZE/TYPE<br>ET20H                                 |  | STATUS<br>Valid from 2019-11-01 due to PCN |  |                                                                                                            |  |

## Packaging Specification - Tray and Carton: [mm]



| L (mm) | L1 (mm) | L2 (mm) | L3 (mm) | W (mm) | W1 (mm) | W2 (mm) | W3 (mm) | H (mm) | Qty. (pcs.) | Material |
|--------|---------|---------|---------|--------|---------|---------|---------|--------|-------------|----------|
| typ.   | typ.    | typ.    | typ.    | typ.   | typ.    | typ.    | typ.    | typ.   |             |          |
| 395,00 | 302,00  | 27,45   | 47,10   | 265,00 | 214,00  | 53,50   | 30,65   | 25,00  | 120         | PS       |



| L <sub>c</sub> (mm) | W <sub>c</sub> (mm) | H <sub>c</sub> (mm) | No. of Tray | No. of Paperboard | No. of Foam | Qty. (pcs.) | Material |
|---------------------|---------------------|---------------------|-------------|-------------------|-------------|-------------|----------|
| typ.                | typ.                | typ.                | pcs.        | pcs.              | pcs.        | pcs.        |          |
| 415,00              | 280,00              | 203,00              | 7           | 14                | 3           | 840         | Paper    |



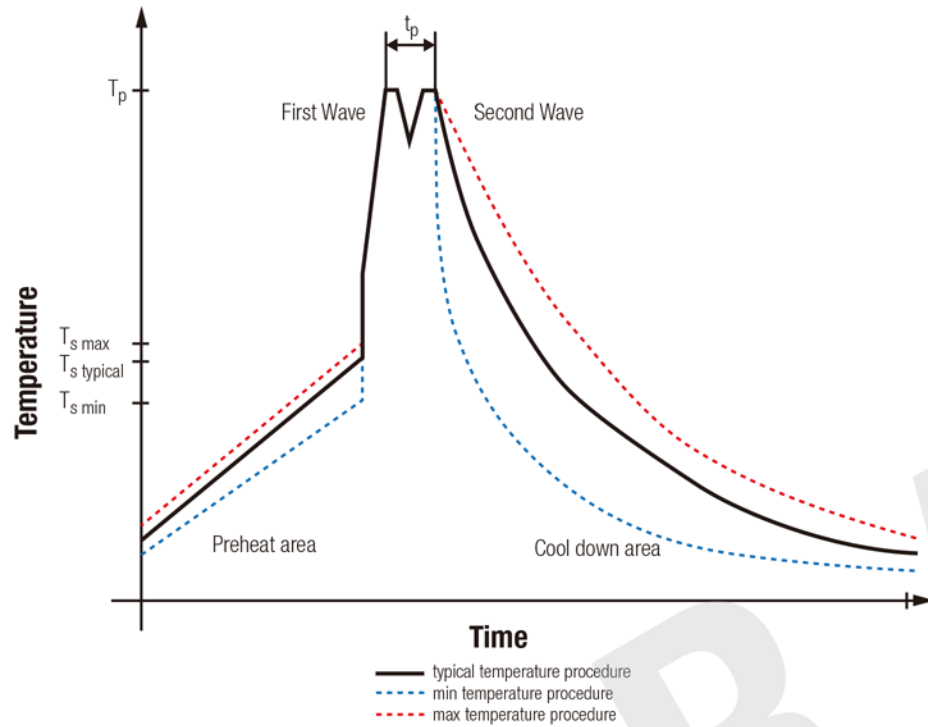
**FKS**  
Electronics



Shaanxi FKS Electronic Parts Import&Export Co.,Ltd.  
Address: Building B1, The West Cloud Valley, Fengxi New City,  
Xixian New Area, Xianyang City, Shaanxi Province, China.  
Tel: 0086 29 8868 5333 Fax: 0086 29 8868 0913  
[Http://www.fks-tech.com](http://www.fks-tech.com)

|                                                    |                                      |                                            |
|----------------------------------------------------|--------------------------------------|--------------------------------------------|
| DATE (YYYY-MM-DD)<br>2019-11-01                    | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION METHOD<br>                      |
| DESCRIPTION<br><b>Common Mode Power Line Choke</b> |                                      | ORDER CODE<br><b>FKS7448640396</b>         |
| SIZE/TYPE<br>ET20H                                 |                                      | STATUS<br>Valid from 2019-11-01 due to PCN |

## Classification Wave Soldering Profile:



## Classification Wave Soldering Profile:

| Profile Feature                                      |                         | Pb-Free Assembly                            | Sn-Pb Assembly                              |
|------------------------------------------------------|-------------------------|---------------------------------------------|---------------------------------------------|
| Preheat Temperature Min                              | $T_{s \min}$            | 100 °C                                      | 100 °C                                      |
| Preheat Temperature Typical                          | $T_{s \text{ typical}}$ | 120 °C                                      | 120 °C                                      |
| Preheat Temperature Max                              | $T_{s \max}$            | 130 °C                                      | 130 °C                                      |
| Preheat Time $t_s$ from $T_{s \min}$ to $T_{s \max}$ | $t_s$                   | 70 seconds                                  | 70 seconds                                  |
| Ramp-up Rate                                         | $\Delta T$              | 150 °C max.                                 | 150 °C max.                                 |
| Peak Temperature                                     | $T_p$                   | 250 °C - 260 °C                             | 235 °C - 260 °C                             |
| Time of actual peak temperature                      | $t_p$                   | max. 10 seconds<br>max. 5 seconds each wave | max. 10 seconds<br>max. 5 seconds each wave |
| Ramp-down Rate, Min                                  |                         | ~ 2 K/ second                               | ~ 2 K/ second                               |
| Ramp-down Rate, Typical                              |                         | ~ 3.5 K/ second                             | ~ 3.5 K/ second                             |
| Ramp-down Rate, Max                                  |                         | ~ 5 K/ second                               | ~ 5 K/ second                               |
| Time 25 °C to 25 °C                                  |                         | 4 minutes                                   | 4 minutes                                   |

refer to EN61760-1:2006

|                                                                                                                                                                                                                                                                                                                   |  |                                     |                                      |                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------|--------------------------------------|--------------------------------------------|
|                                                                                                                                                                                                                                                                                                                   |  | DATE (YYYY-MM-DD)<br>2019-11-01     | GENERAL TOLERANCE<br>DIN ISO 2768-1m | PROJECTION METHOD<br>                      |
| <p>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></p> |  | <b>Common Mode Power Line Choke</b> |                                      | ORDER CODE<br>FKS7448640396                |
| SIZE/TYPE<br>ET20H                                                                                                                                                                                                                                                                                                |  |                                     |                                      | STATUS<br>Valid from 2019-11-01 due to PCN |