



## DISCRIPTION

### FEATURES

Low resistance to keep power loss minimum.

### OPTIONS

Tape & Reel is Standard  
Tolerance: M=20% is Standard,  
Tighter Tolerances Available

### APPLICATIONS

Excellent as DC-DC Converter used in  
notebooks computers, PDA and mobile  
handphones, Step-up or step-down  
converters, flash memory

## PHYSICAL CHARACTERISTICS

- Inductance measured by LCR Meter HP 4284A
- DC Resistance measured by Milliohm meter HP4338B
- SRF measured by Network analyzer HP 4294/HP4291
- SRF is for reference only
- $\Delta$  Temperature = 40°C max at I rms
- $\Delta$  L/L0A = 10% typical at I sat

## ELECTRICAL SPECIFICATIONS

| Properties         | Test conditions |          | Value | Unit     | Tol.       |
|--------------------|-----------------|----------|-------|----------|------------|
| Inductance         |                 | L        | 180   | $\mu$ H  | see Site 2 |
| Q factor           |                 | Q        | ---   |          | min.       |
| DC-resistance      |                 | DCR typ. | ---   | $\Omega$ | typ.       |
| DC-resistance      |                 | DCR max. | 2,2   | $\Omega$ | max.       |
| Self-Res. Freq.    |                 | SRF      | 7     | MHz      | min.       |
| Test-Freq.         |                 |          | ---   | KHz      |            |
| Rated Current      |                 | I rms    | 0,45  | A        | max.       |
| Saturation Current |                 | I sat    | 0,6   | A        | max.       |

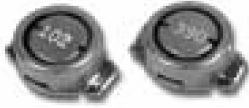
1. This electronic component is meant to be used in general electronic equipment. Before the incorporation of this component into any equipment with higher and more reliable requirements such as aviation, aerospace, submarine, nuclear control, transportation, transportation signal, disaster prevention, medical, public information network, etc. or if there is a possibility of injuries or damages to the human body, Edcon –Components must be informed before the stage of design-in. Evaluation checks for safety have to be performed on each electronic components used in electrical circuits that require high safety and reliability functions.

### SMT SHIELD POWER INDUCTORS

Part No.: **S45002-181**

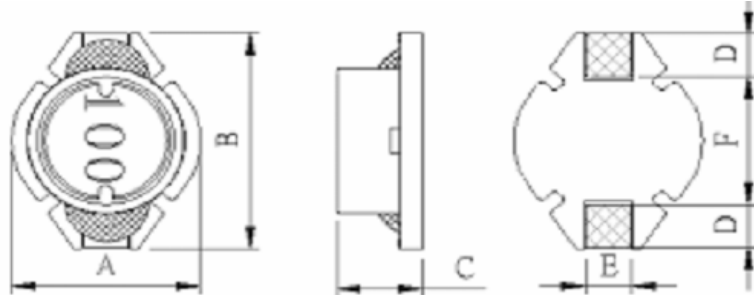
Customer:

|       |       |      |       |        |         |       |            |
|-------|-------|------|-------|--------|---------|-------|------------|
| DRW:  | Chang | CHKD | Young | MATL:  | Chu Chi | DATE  | 26.06.2009 |
| APPD: | Pong  |      |       | FINISH | Vienna  | Sheet | 1 from 2   |



## TECHNICAL INFORMATION

### Dimensions ( mm )

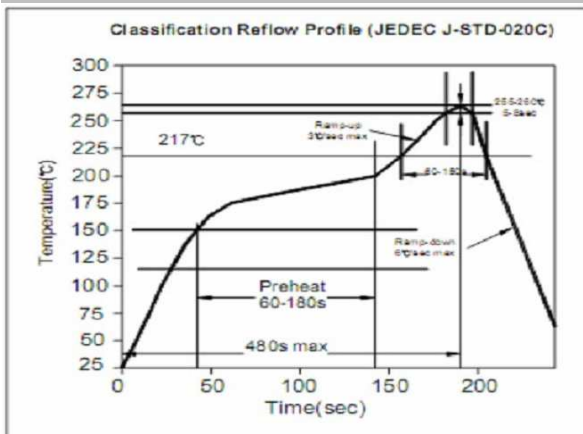


|          |            |          |           |          |           |
|----------|------------|----------|-----------|----------|-----------|
| <b>A</b> | 10,0 ± 0,2 | <b>C</b> | 3,0 ± 0,3 | <b>E</b> | 2,2 ± 0,2 |
| <b>B</b> | 12,7 ± 0,2 | <b>D</b> | 2,4 ± 0,2 | <b>F</b> | 7,6 ± 0,3 |

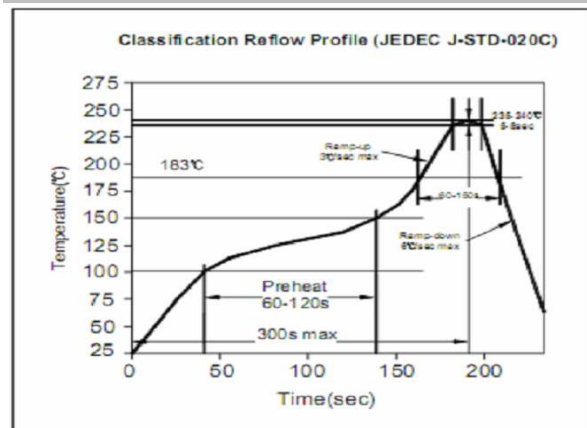
### Ordering Information

| Serie and Range | Tolerance | ROHS         | Packing        |
|-----------------|-----------|--------------|----------------|
| S45002-181      | M         | R            | TR             |
|                 | K = 10%   | R = ROHS     | BU = Bulk Ware |
|                 | M = 20%   | N = non ROHS | TR = Tape Reel |

### Soldering Profile for Lead Free Soldering 255-260°C



### Soldering Profile for Lead Free Soldering 235-240°C



1. This electronic component is meant to be used in general electronic equipment. Before the incorporation of this component into any equipment with higher and more reliable requirements such as aviation, aerospace, submarine, nuclear control, transportation, transportation signal, disaster prevention, medical, public information network, etc. or if there is a possibility of injuries or damages to the human body, Edcon –Components must be informed before the stage of design-in. Evaluation checks for safety have to be performed on each electronic components used in electrical circuits that require high safety and reliability functions.

### SMT SHIELD POWER INDUCTORS

Part No.: **S45002-181**

Customer:

|       |       |      |       |        |         |       |            |
|-------|-------|------|-------|--------|---------|-------|------------|
| DRW:  | Chang | CHKD | Young | MATL:  | Chu Chi | DATE  | 26.06.2009 |
| APPD: | Pong  |      |       | FINISH | Vienna  | Sheet | 2 from 2   |