

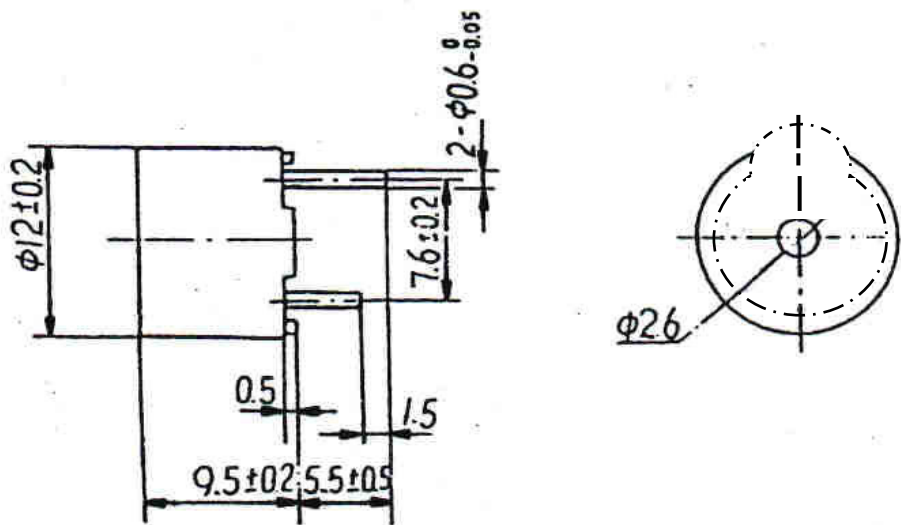
F/TCW05 LF

Technical terms Technische Daten

|                                                          |                                                                                     |
|----------------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated Voltage Nennspannung                               | 5V                                                                                  |
| Operating voltage Betriebsspannungsbereich               | 4...6.5V                                                                            |
| a) Rated Current Nennstrom                               | ≤30mA                                                                               |
| a) Sound Output [SPL]at 10 cm Schalldruckpegel] in 10 cm | ≥85dB                                                                               |
| a) Resonant Frequency Resonanzfrequenz                   | 2300 ± 300Hz                                                                        |
| b) Response time Anschwingzeit                           | ≤50msec                                                                             |
| Operating Temperature Betriebs-Temperatur                | -40 ...+85 °C                                                                       |
| Storage Temperature Lagerungs-Temperatur                 | -40 ...+85 °C                                                                       |
| Inductance Induktivität                                  | 3.6 ± 0.5mH                                                                         |
| Weight Gewicht                                           | 2g                                                                                  |
| Polarity Polarität                                       | marked by a plus sign on the housing<br>Markiert mit einem Plus Zeichen am Gehäuse. |

- a) Value applying rated voltage (DC)  
Wert bei angelegter Nennspannung (DC)
- b) Value applying minimum operating voltage (DC)  
Wert bei angelegter minimaler Betriebsspannung (DC)

Drawings Zeichnungen



Halbzeug, Werkstoff

Untolerierte Maße

Zeichn.-Nr.

050126.2B

Maßstab

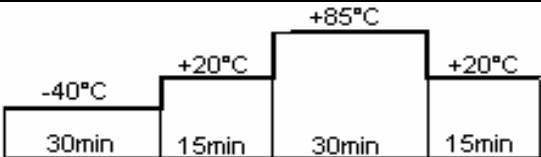
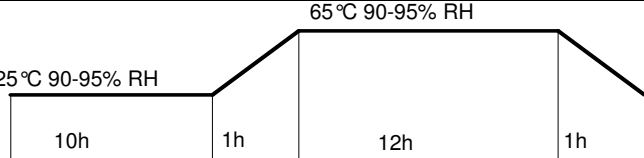
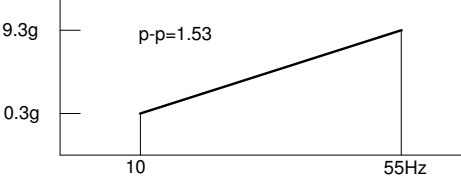
Ersatz f.  
Zeichn.

Page Blatt 1 of von 3

|            | Tag      | Name | And.<br>zust. | And.-Mittlg.<br>Nr. | Tag      | Name |
|------------|----------|------|---------------|---------------------|----------|------|
| gezeichnet |          |      | 1             | Reliability         | 17.03.05 | FM   |
| bearbeitet | 26.01.05 | FM   | 2             | Wave                | 02.03.06 | FM   |
| geprüft    |          |      |               |                     |          |      |
| normgepr.  |          |      |               |                     |          |      |

F/TCW05 LF

## Reliability *Zuverlässigkeit*

| Item                           | Method of test                                                                                                                                                                                 | Standard                                                |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Storage in high temperature    | Storage in +85°C test box for 96hours, then expose to the room temperature for 2hours without applying power.                                                                                  | All specifications must be satisfied in this condition. |
| Storage in low temperature     | Storage in -40°C test box for 96hours, then expose to the room temperature for 2hours without applying power.                                                                                  | All specifications must be satisfied in this condition. |
| Life test in room temperature  | Operate continuously for 1000 hours with applying rated voltage.                                                                                                                               | All specifications must be satisfied in this condition. |
| Life test in high temperature  | Operate continuously in +85°C for 500hours applying 6.5V.                                                                                                                                      | All specifications must be satisfied in this condition. |
| Life test in low temperature   | Operate continuously in -40°C for 500hours applying 4V.                                                                                                                                        | All specifications must be satisfied in this condition. |
| Temperature cycle test         |  <p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p> | All specifications must be satisfied in this condition. |
| Humidity cycle test            |  <p>Make this test for 5 cycles without applying power, then expose to the room temperature for 2 hours.</p> | All specifications must be satisfied in this condition. |
| Vibration test                 |  <p>Make this test for the directions X,Y and Z for 30minutes each. To- and -fro sweep time is 1min.</p>     | All specifications must be satisfied in this condition. |
| Drop test                      | Drop a buzzer naturally from the height of 700mm to the surface of 10 mm thick woodenboard. Three directions (X,Y &Z)                                                                          | All specifications must be satisfied in this condition. |
| Solderability                  | Temperature: 245 ± 5°C<br>Duration: 3 sec<br>After test minimum 95% coverage of surface                                                                                                        | All specifications must be satisfied in this condition. |
| Resistance against solder-heat | <u>Pins:</u><br>No deterioration after dipping in solder 265±5°C for 10sec.<br><u>Housing:</u><br>Maximum temperature on housing: 110°C                                                        | All specifications must be satisfied in this condition  |
| Pin Strenght                   | Each Pin may withstand against pulling force of 1kg for 30seconds                                                                                                                              | All specifications must be satisfied in this condition  |

Diese Zeichnung ist unser Eigentum. Vervielfältigung unbefugte Verwertung, Mitteilung an andere ist strafbar und Schadensersatzpflichtig



Halbzeug, Werkstoff

Untolerierte Maße

Zeichn.-Nr.

050126.2B

Maßstab

Ersatz f.  
Zeichn.

Vervielfält.-Pause  
Nr.

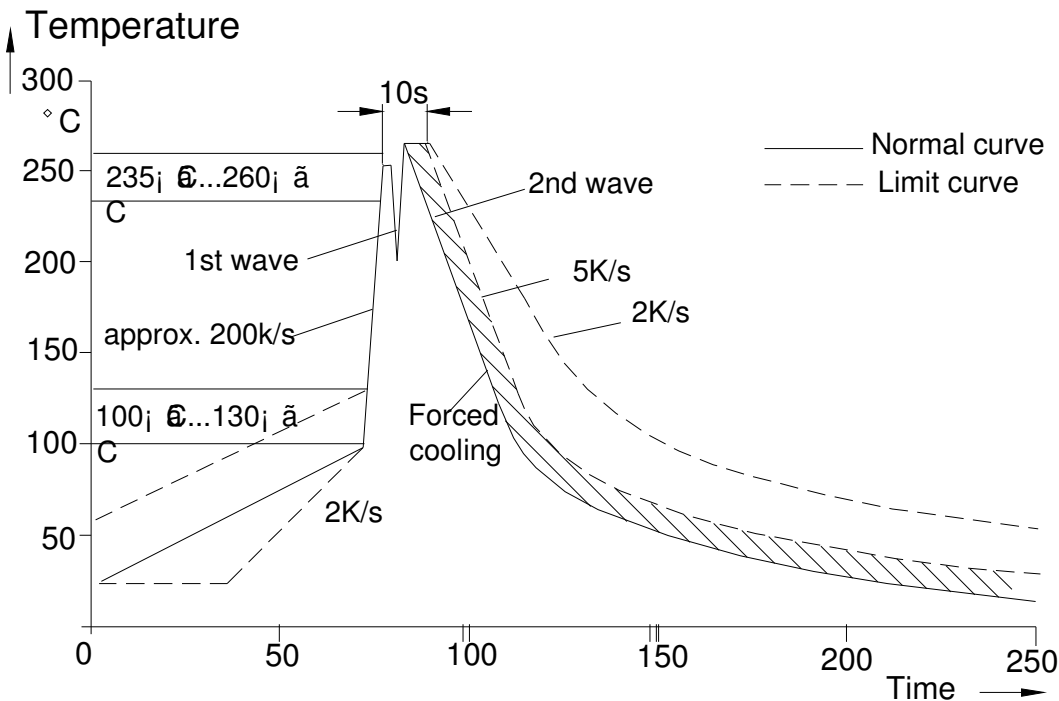
Arbeitspause Nr.

|            | Tag      | Name | And.<br>zust. | And.-Mittlg.<br>Nr. | Tag      | Name |
|------------|----------|------|---------------|---------------------|----------|------|
| gezeichnet |          |      | 1             | Reliability         | 17.03.05 | FM   |
| bearbeitet | 26.01.05 | FM   | 2             | Wave                | 02.03.06 | FM   |
| geprüft    |          |      |               |                     |          |      |
| normgepr.  |          |      |               |                     |          |      |

**F/TCW05 LF**

Soldering condition *Lötbedingung*

Wave soldering *Schwallöten*:



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|                                                                                     |          |      |                     |                     |          |      |                   |  |                          |  |
|-------------------------------------------------------------------------------------|----------|------|---------------------|---------------------|----------|------|-------------------|--|--------------------------|--|
|  |          |      | Halbzeug, Werkstoff |                     |          |      | Untolerierte Maße |  | Zeichn.-Nr.<br>050126.2B |  |
|                                                                                     |          |      |                     |                     |          |      | Maßstab           |  | Ersatz f.<br>Zeichn.     |  |
|                                                                                     | Tag      | Name | And.<br>zust.       | And.-Mittlg.<br>Nr. | Tag      | Name | F/TCW05 LF        |  |                          |  |
| gezeichnet                                                                          |          |      | 1                   | Reliability         | 17.03.05 | FM   |                   |  |                          |  |
| bearbeitet                                                                          | 26.01.05 | FM   | 2                   | Wave                | 02.03.06 | FM   |                   |  |                          |  |
| geprüft                                                                             |          |      |                     |                     |          |      |                   |  |                          |  |
| normgepr.                                                                           |          |      |                     |                     |          |      |                   |  |                          |  |

Arbeitspause Nr.