

规格书编号

SPEC NO:

产品规格书 SPECIFICATION

| CUSTOMER 客户: | | | | |
|-------------------------|-------------------|-----------------|-----------------------|--|
| PRODUCT 产品:_ | CERAMIC RESONATOR | | | |
| MODEL NO 型 号:_ | ZTH455E | | | |
| PREPARED 编 制: | fengyu | CHECKED 审 相 | 亥 <mark>:</mark> york | |
| APPROVED 批准:_ | lijiating | DATE 日 期 | 月: 2008-6-28 | |
| | | | | |
| 客户确认 CUSTOMER RECEIVED: | | | | |
| | | | | |
| | | | | |
| 审核 CHECKED | 批准 | È APPROVED | 日期 DATE | |
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无锡市好达电子有限公司 Shoulder Electronics Limited



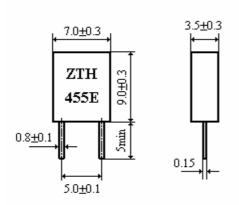
更改历史记录 History Record

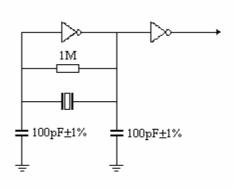
| 更改日期 Date | 规格书编号 Spec No | 产品型号 Part No | 客户产品型号 Customer No | 更改内容描述 Modify Content | 备注 Remark |
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CERAMIC RESONATOR

Dimensions

■ Test Circuit





IC: 1/6CD4069UBE(RCA)

V_{DD}: +5V

■Electrical Characteristics

| 1. Oscillating Frequency (Fosc) | $455 \pm 2 \text{kHz}$ | |
|---|------------------------------|--|
| 2. Resonant Impedance(R ₀) | ≤20 Ω | |
| 3. Static Capacitance | 285pF±20% | |
| 4. Insulation Resistance | ≥100M \(\Omega \) (100V DC) | |
| 5. Absolute Maximum Voltage | _ | |
| (1) Maximum D.C. Voltage | 50V DC | |
| (2) Maximum Input Voltage | 15Vp-p | |
| 6. Temperature Characyeristic | ≤±0.3% (-20°C∼+80°C) | |
| 7. Change of Oscillating Frequency after Environmental Test | ≤±0.3% | |
| 8. Operating Temperature Range | -20℃~+80℃ | |
| 9. Storage Temperature Range | -55℃~+85℃ | |
| 10. Aging for 10 Years | ≤±0.5% | |

■Enviromental Characteristics

| Items | Test Condition | Spec. |
|----------|---|-------|
| 1. Shock | Drop naturally 3 times on a concrete plate from | |
| Proof | 100cm height. | |



| 2. Vibration | Apply vibration at the frequency varying | Meet E lectronic |
|------------------|--|-----------------------------|
| Proof | uniformary between limits of 10 to 55Hz, an | characteristics $1\sim 7$. |
| | amplitude of 1.5mm, in each 3 mutually | |
| | perpendicular direction. After 5 cycles testing in | |
| | each direction, meanure the electrical | |
| | performance. | |
| 3. Resistance to | Dip the termination in the 260 ± 5 °C solder to | No existence of mechanical |
| Soldering | a point 2mm from the root of termination for 10 | damage and remarkable |
| Heat | \pm 1s, measure the electrical performance at 24 \pm | change. |
| | 2hrs past in the room condition. | |
| 4. Tensile | Apply a force in the drawn out direction | |
| Strengh of | gradually up to 10N, and keep it as it is for 10s. | |
| Termination | | |
| 5. Solderability | Dip the termination in the 230 ± 5 °C solder to | More than 95% of the |
| | a point 2mm from the root of termination for $5\pm$ | terminal surface of the |
| | 1s. | termination shall be |
| | | covered with fresh solder. |
| 6. Hight | After 85 ± 2 °C 96hrs testing, measure the | |
| Temperiture | electrical performance at 24 ± 2hrs past in the | |
| | room condition. | |
| 7. Low | After -25 ± 2 °C 96hrs testing, measure the | Meet ■ Electronic |
| Temperiture | electrical performance at 24 ± 2hrs past in the | characteristics $1\sim 7$. |
| | room condition. | |
| 8. Humidity | 40 ± 2 °C, $90 \sim 95$ % RH, after 96hrs testing, | No existence of mechanical |
| Proof | measure the electrical performance at 24±2hrs | damage and remarkable |
| | past in the room condition. | change. |
| 9. Heat Shock | -25° C(30min) \rightarrow (2 \sim 3min) \rightarrow 80 $^{\circ}$ C(30min) is 1 | |
| Proof | cycle. After 5 cycles, measure the elctrical | |
| | performance at 24 ± 2 hrs past in the room | |
| | condition. | |
| 10. Temperiture | Between -20° C and $+80^{\circ}$ C. | Change from +25 °C of |
| Stability | | ceter frequency shall be |
| | | within 1.5kHz. |