Token Electronics Industry Co., Ltd.

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Product Introduction

Introduction (JTCV10.7M)

Features:
- High sensitivity and stability.
- Small in size and light weight.
- Wide range of standard products are available for various ICs.

Characteristics:
- Center Frequency: 10.7MHz.
- Storage temperature range: -40°C to +85°C.
- Operating temperature range: -20°C to +80°C.
- Dimensions: (3.7±0.2 × 3.1±0.2 × 1.4±0.2) Unit: mm.

Token offers compact low-cost low power processor SMD ceramic discriminator for FM. Token takes advantages of SMD ceramic discriminators which convert the changes in frequency into an audio signal via the various detection methods based on impedance or phase characteristics of piezoelectric technology. The incorporation of piezoelectric technology allows the product's function and feature set to be easily configured via surface mount installation.

The discriminator functions to convert the change of the frequency into audio frequency, and unique system of detection only used for FM broadcasting. The detection of FM wave is made through the circuit in which the relation between the frequency and the output voltage is linear. FM wave detection methods, such as ratio detection, Foster-Seeley detection, quadrature detection, differential peak detection, etc. are known.

Surface mount ceramic discriminators (JTCV10.7M) for FM are resonated devices that offer adjustment free audio detection in both wide and narrow bandwidths. These IC dependent devices utilize FM specific detection methods to convert changes in frequency into an intelligible audio signal.

Custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, contact us with your specific needs. For more information, please link to Token official website “Ceramic Discriminator”.
## Dimensions

### Dimensions (Unit: mm) (JTCV10.7M)

![Dimensions Diagram](image)

## Technical Characteristics

### Technical Characteristics (JTCV10.7M)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Demodulation Output at fo (mv) min</th>
<th>Distortion Factor at fo (%) max</th>
<th>Demodulation 3dB Band Width (KHz) max</th>
<th>Applicable IC</th>
</tr>
</thead>
<tbody>
<tr>
<td>JTCV10.7MG1</td>
<td>25</td>
<td>1.0</td>
<td>345</td>
<td>CX-2009, CX-20111</td>
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<td>JTCV10.7MG3</td>
<td>650</td>
<td>1.0</td>
<td>±150</td>
<td>TA7303P, TA7130, μPC1028H, LA1150</td>
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<td>JTCV10.7MG16</td>
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<td>0.9</td>
<td>300</td>
<td>TA8122AN</td>
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<td>JTCV10.7MG18</td>
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<td>TA8132N</td>
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<td>250</td>
<td>TA2007</td>
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<td>TA2104AFN</td>
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<td>1.0</td>
<td>242</td>
<td>CXA1019M, CX-20091</td>
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Test Circuit

Test Circuit (JTCV10.7M)

FM (JTCV10.7MG3) Test Circuit

FM (JTCV10.7MG1a) Test Circuit

FM (JTCV10.7MC1) Test Circuit

Order Codes

Order Codes (JTCV10.7M)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package (TR: Taping Reel)</th>
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<tbody>
<tr>
<td>JTCV10.7MG3</td>
<td>TR</td>
</tr>
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</table>
General Information

Advantage of Token Piezoelectric Ceramics
Token Electronics had been able to develop specialized piezo materials which when combined with an advance design have resulted in a complete line of practical, inexpensive piezo devices for entertainment and communications applications.

Token reliably deliver high-quality components according to the each customer special needs with respect to performance, costs, and technology modifications.

For marketing discontinuations or sourcing activities concerning Piezoelectric Discriminator products, you are encouraged to contact our Sales Department so the request can be properly directed within Token.