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TOKEN

(TSR)

Saw Resonators

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▶ Product Introduction

Saw Resonators (TSR) Can Replace LC Elements and Quartz Crystals.

Token Saw Resonator employs surface acoustic wave, and is able to be applied to high frequency circuit where conventional crystal, ceramic resonators are not available, as resonator oscillates stably with its fundamental mode over frequency range from 200 MHz to around 1 GHz.

The resonator uses arrays of metal strips, with pitch $\lambda/2$, as reflectors of the waves. These arrays can give strong Saw reflections, and two arrays can be used to form a Saw cavity with high Q. Such resonators are often used for high-stability oscillators.



(TSR) can be applied to many types of high frequency devices including RF remote controls, CATV FSK demodulators and CATV 2nd local oscillators. (TSR) resonator is ideal for applications such as automotive keyless entry, tire pressure monitoring, gate and door openers, personal and home security, and automated meter readers, wireless point of sale terminals, identification tags, bar code readers, and computer peripherals.

Token offers 2 type Resonators in terms of 1-port and 2-port.

1-Port Type:

- One-port, typically one-pole, resonators are used in oscillator applications.
- Most of the application circuit is Colpitts or similar type that can be made with low cost.
- 1-port resonator is basically a 2 terminal device and its application is similar to that of quartz bulk wave resonator or ceramic resonator.
- Also, it is also applicable to VCO (Voltage Controlled Oscillator) application.

2-Port Type:

- 2-port resonator is a kind of very narrow, low loss band-pass filter.
- Oscillation circuit is mostly like a RF amplifier with feedback loop.
- There are many varieties of two-port (multi-pole) resonator structures in production.

The (TSR) Resonator series has high stability; good temperature characteristics provided by quartz crystal substrate and are developed with Saw technology accumulated for Saw filters through Token's experience. In addition, (TSR) Resonator can be customized designs and other frequency requirements available on request. Contact us with your specific needs. For more information, please link to Token official website "[Saw Resonators](http://www.token.com.tw)".

▶ One Port Resonators

for Automotive Electronics & Remote Control (TSR) One Port Type

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR224D50-D2 | 224.5 | 1.2 | | F-11 |
| TSR224D70-D1 | 224.7 | 1.4 | | TO-39 |
| TSR265D00-D1 | 265 | 1.8 | | TO-39 |
| TSR288D00-D1 | 288 | 1.5 | | TO-39 |
| TSR293D125-S5 | 293.125 | 1.6 | QCC4A | |
| TSR295D00-D1 | 295 | 1.5 | | TO-39 |
| TSR300D00A-D1 | 300 | 1.3 | | TO-39 |
| TSR300D00B-S4 | 300 | 1.3 | QCC8C | |
| TSR300D00C-S4 | 300 | 1.5 | QCC8C | |
| TSR300D3625-S4 | 300.3625 | 1.3 | QCC8C | |
| TSR303D75-D1 | 303.75 | 1.5 | | TO-39 |
| TSR303D825A-S5 | 303.825 | 1.2 | QCC4A | |
| TSR303D825B-D1 | 303.825 | 1.5 | | TO-39 |
| TSR303D825C-D2 | 303.825 | 1.3 | | F-11 |
| TSR303D825D-S4 | 303.825 | 1.4 | QCC8C | |
| TSR303D875A-D1 | 303.875 | 1.5 | | TO-39 |
| TSR303D875B-D2 | 303.875 | 1.3 | | F-11 |
| TSR303D875C-S5 | 303.875 | 1.6 | QCC4A | |
| TSR303D875D-S4 | 303.875 | 1.4 | QCC8C | |
| TSR303D948A-S5 | 303.948 | 1.5 | QCC4A | |
| TSR303D948B-S4 | 303.948 | 1.3 | QCC8C | |
| TSR304D00-D1 | 304 | 1.2 | | TO-39 |
| TSR304D30A-D1 | 304.3 | 1.4 | | TO-39 |
| TSR304D30B-S11 | 304.3 | 1.5 | F11SMD | |
| TSR304D30C-S5 | 304.3 | 1.5 | QCC4A | |
| TSR305D675-D1 | 305.675 | 1.8 | | TO-39 |
| TSR306D00-D2 | 306 | 1.2 | | F-11 |
| TSR308D50-D1 | 308.5 | 1.2 | | TO-39 |
| TSR309D00-D1 | 309 | 1.3 | | TO-39 |
| TSR310D00A-D1 | 310 | 1.4 | | TO-39 |
| TSR310D00B-S5 | 310 | 1.1 | QCC4A | |
| TSR310D00C-S4 | 310 | 1.3 | QCC8C | |
| TSR311D00A-D1 | 311 | 1.5 | | TO-39 |
| TSR311D00B-S4 | 311 | 1.5 | QCC8C | |
| TSR311D063A-S5 | 311.063 | 1.3 | QCC4A | |
| TSR311D063B-S4 | 311.063 | 1.3 | QCC8C | |
| TSR312D00A-D1 | 312 | 1.3 | | TO-39 |
| TSR312D00B-S5 | 312 | 1.3 | QCC4A | |
| TSR312D00C-S4 | 312 | 1.2 | QCC8C | |
| TSR314D50A-D1 | 314.5 | 1.5 | | TO-39 |
| TSR314D50B-D2 | 314.5 | 1.5 | | F-11 |

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR314D50C-S5 | 314.5 | 1.3 | QCC4A | |
| TSR314D50D-S4 | 314.5 | 1.2 | QCC8C | |
| TSR314D50E-S11 | 314.5 | 1.6 | F11SMD | |
| TSR315D00A-D1 | 315 | 1.5 | | TO-39 |
| TSR315D00B-D2 | 315 | 1.5 | | F-11 |
| TSR315D00C-D3 | 315 | 1.0 | | D-11 |
| TSR315D00D-S5 | 315 | 1.3 | QCC4A | |
| TSR315D00E-S4 | 315 | 1.4 | QCC8C | |
| TSR315D00F-S9 | 315 | 1.5 | DCC6C | |
| TSR315D00G-S7 | 315 | 1.3 | DCC6 | |
| TSR315D00H-S11 | 315 | 1.6 | F11SMD | |
| TSR315D50A-D1 | 315.5 | 1.2 | | TO-39 |
| TSR315D50B-D2 | 315.5 | 1.3 | | F-11 |
| TSR315D50C-D3 | 315.5 | 1.3 | | D-11 |
| TSR315D50D-S5 | 315.5 | 1.5 | QCC4A | |
| TSR315D50E-S5 | 315.5 | 1.6 | QCC4A | |
| TSR315D50F-S4 | 315.5 | 1.5 | QCC8C | |
| TSR315D50G-S7 | 315.5 | 1.5 | DCC6 | |
| TSR315D50H-S9 | 315.5 | 1.3 | DCC6C | |
| TSR316D025-D1 | 316.025 | 1.2 | | TO-39 |
| TSR316D65-D1 | 316.65 | 1.3 | | TO-39 |
| TSR316D80A-D1 | 316.8 | 1.3 | | TO-39 |
| TSR316D80B-D2 | 316.8 | 1.3 | | F-11 |
| TSR316D80C-S5 | 316.8 | 1.2 | QCC4A | |
| TSR317D50-S5 | 317.5 | 1.2 | QCC4A | |
| TSR318D00A-D1 | 318 | 1.0 | | TO-39 |
| TSR318D00B-D2 | 318 | 1.0 | | F-11 |
| TSR318D00C-S5 | 318 | 1.2 | QCC4A | |
| TSR318D00D-S4 | 318 | 1.5 | QCC8C | |
| TSR319D00-S4 | 319 | 1.0 | QCC8C | |
| TSR319D50A-S5 | 319.5 | 1.3 | QCC4A | |
| TSR319D50B-S4 | 319.5 | 1.3 | QCC8C | |
| TSR320D00-D1 | 320 | 1.5 | | TO-39 |
| TSR324D00-S4 | 324 | 1.5 | QCC8C | |
| TSR325D00A-D1 | 325 | 1.6 | | TO-39 |
| TSR325D00B-D2 | 325 | 1.6 | | F-11 |
| TSR330D00A-D1 | 330 | 1.2 | | TO-39 |
| TSR330D00B-D2 | 330 | 1.0 | | F-11 |
| TSR333D00A-D1 | 333 | 1.3 | | TO-39 |
| TSR333D00B-D2 | 333 | 1.3 | | F-11 |
| TSR334D50-D2 | 334.5 | 1.8 | | F-11 |
| TSR336D00-D3 | 336 | 1.5 | | D-11 |
| TSR340D00A-D1 | 340 | 1.0 | | TO-39 |
| TSR340D00B-S4 | 340 | 1.3 | QCC8C | |
| TSR345D00A-D1 | 345 | 1.4 | | TO-39 |

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR345D00B-S5 | 345 | 1.5 | QCC4A | |
| TSR345D00C-S4 | 345 | 1.5 | QCC8C | |
| TSR350D00A-D1 | 350 | 1.3 | | TO-39 |
| TSR350D00B-D2 | 350 | 1.0 | | F-11 |
| TSR350D00C-S4 | 350 | 1.5 | QCC8C | |
| TSR360D00A-D1 | 360 | 1.5 | | TO-39 |
| TSR360D00B-D2 | 360 | 1.2 | | F-11 |
| TSR360D00C-S4 | 360 | 1.3 | QCC8C | |
| TSR360D00D-S5 | 360 | 1.2 | QCC4A | |
| TSR370D00-S4 | 370 | 1.2 | QCC8C | |
| TSR372D00-S5 | 372 | 1.2 | QCC4A | |
| TSR372D50A-D1 | 372.5 | 1.0 | | TO-39 |
| TSR372D50B-S5 | 372.5 | 1.2 | QCC4A | |
| TSR372D50C-S4 | 372.5 | 1.4 | QCC8C | |
| TSR380D00-D2 | 380 | 1.2 | | F-11 |
| TSR384D05-D2 | 384.05 | 1.3 | | F-11 |
| TSR388D95-D2 | 388.95 | 1.2 | | F-11 |
| TSR390D00A-D1 | 390 | 1.2 | | TO-39 |
| TSR390D00B-D2 | 390 | 1.4 | | F-11 |
| TSR390D00C-S4 | 390 | 1.2 | QCC8C | |
| TSR390D00D-S4 | 390 | 1.3 | QCC8C | |
| TSR392D85-S4 | 392.85 | 1.3 | QCC8C | |
| TSR395D00A-D1 | 395 | 1.5 | | TO-39 |
| TSR395D00B-D2 | 395 | 1.0 | | F-11 |
| TSR395D00C-S5 | 395 | 1.5 | QCC4A | |
| TSR395D50A-D1 | 395.5 | 1.2 | | TO-39 |
| TSR395D50B-D2 | 395.5 | 1.3 | | F-11 |
| TSR396D00-D1 | 396 | 1.3 | | TO-39 |
| TSR403D55A-D1 | 403.55 | 1.2 | | TO-39 |
| TSR403D55B-S5 | 403.55 | 1.3 | QCC4A | |
| TSR403D55C-S4 | 403.55 | 1.3 | QCC8C | |
| TSR403D966A-S5 | 403.966 | 1.3 | QCC4A | |
| TSR403D966B-S4 | 403.966 | 1.5 | QCC8C | |
| TSR407D30A-D1 | 407.3 | 1.3 | | TO-39 |
| TSR407D30B-S4 | 407.3 | 1.3 | QCC8C | |
| TSR417D50A-D1 | 417.5 | 1.4 | | TO-39 |
| TSR417D50B-S4 | 417.5 | 1.5 | QCC8C | |
| TSR418D00A-D1 | 418 | 1.5 | | TO-39 |
| TSR418D00B-D2 | 418 | 1.6 | | F-11 |
| TSR418D00A-S5 | 418 | 1.2 | QCC4A | |
| TSR418D00B-S4 | 418 | 1.6 | QCC8C | |
| TSR418D00C-S6 | 418 | 1.7 | QCC8B | |
| TSR418D00D-S9 | 418 | 1.8 | DCC6C | |
| TSR419D95-D2 | 419.95 | 1.4 | | F-11 |
| TSR423D22A-D1 | 423.22 | 1.3 | | TO-39 |

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR423D22B-D2 | 423.22 | 1.5 | | F-11 |
| TSR423D22C-S5 | 423.22 | 1.6 | QCC4A | |
| TSR423D22D-S4 | 423.22 | 1.6 | QCC8C | |
| TSR426D00-S4 | 426 | 1.5 | QCC8C | |
| TSR426D55-S4 | 426.55 | 1.5 | QCC8C | |
| TSR430D50A-D1 | 430.5 | 2.0 | | TO-39 |
| TSR430D50B-D2 | 430.5 | 2.2 | | F-11 |
| TSR430D50C-D3 | 430.5 | 1.6 | | D-11 |
| TSR430D65-D1 | 430.65 | 2.0 | | TO-39 |
| TSR432D00-D2 | 432 | 1.2 | | F-11 |
| TSR432D92A-D1 | 432.92 | 1.3 | | TO-39 |
| TSR432D92B-S4 | 432.92 | 1.3 | QCC8C | |
| TSR433D00-D1 | 433 | 1.0 | | TO-39 |
| TSR433D385-S4 | 433.385 | 1.3 | QCC8C | |
| TSR433D42A-D1 | 433.42 | 1.8 | | TO-39 |
| TSR433D42B-S5 | 433.42 | 1.3 | QCC4A | |
| TSR433D42C-S4 | 433.42 | 1.5 | QCC8C | |
| TSR433D42D-S9 | 433.42 | 1.6 | DCC6C | |
| TSR433D62-S9 | 433.62 | 1.6 | DCC6C | |
| TSR433D85-D2 | 433.85 | 1.6 | | F-11 |
| TSR433D92A-D1 | 433.92 | 1.8 | | TO-39 |
| TSR433D92B-D1 | 433.92 | 1.5 | | TO-39 |
| TSR433D92C-D1 | 433.92 | 2.6 | | TO-39 |
| TSR433D92D-D1 | 433.92 | 1.3 | | TO-39 |
| TSR433D92E-D1 | 433.92 | 1.1 | | TO-39 |
| TSR433D92F-D2 | 433.92 | 1.3 | | F-11 |
| TSR433D92G-D2 | 433.92 | 1.5 | | F-11 |
| TSR433D92H-D3 | 433.92 | 1.0 | | D-11 |
| TSR433D92I-S5 | 433.92 | 1.5 | QCC4A | |
| TSR433D92J-S4 | 433.92 | 1.2 | QCC8C | |
| TSR433D92K-S4 | 433.92 | 1.6 | QCC8C | |
| TSR433D92L-S4 | 433.92 | 2.0 | QCC8C | |
| TSR433D92M-S4 | 433.92 | 2.0 | QCC8C | |
| TSR433D92N-S4 | 433.92 | 1.8 | QCC8C | |
| TSR433D92O-S9 | 433.92 | 1.6 | DCC6C | |
| TSR433D92P-S7 | 433.92 | 1.5 | DCC6 | |
| TSR433D92Q-S6 | 433.92 | 1.5 | QCC8B | |
| TSR433D92R-S11 | 433.92 | 1.8 | F11SMD | |
| TSR433D97-D1 | 433.97 | 1.1 | | TO-39 |
| TSR434D40-D1 | 434.4 | 1.3 | | TO-39 |
| TSR434D42A-D1 | 434.42 | 1.3 | | TO-39 |
| TSR434D42B-S5 | 434.42 | 1.8 | QCC4A | |
| TSR434D42C-S4 | 434.42 | 2.0 | QCC8C | |
| TSR435D00-D1 | 435 | 1.2 | | TO-39 |
| TSR435D72A-S5 | 435.72 | 1.3 | QCC4A | |

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR435D72B-S4 | 435.72 | 2.8 | QCC8C | |
| TSR435D80-D1 | 435.8 | 1.3 | | TO-39 |
| TSR440D80-D1 | 440.8 | 2.5 | | TO-39 |
| TSR441D20A-D1 | 441.2 | 2.7 | | TO-39 |
| TSR441D20B-D2 | 441.2 | 2.8 | | F-11 |
| TSR447D699A-S5 | 447.699 | 1.3 | QCC4A | |
| TSR447D699B-S4 | 447.699 | 1.0 | QCC8C | |
| TSR447D725A-D1 | 447.725 | 1.5 | | TO-39 |
| TSR447D725B-S5 | 447.725 | 1.6 | QCC4A | |
| TSR479D50A-D1 | 479.5 | 1.3 | | TO-39 |
| TSR479D50B-D2 | 479.5 | 1.5 | | F-11 |
| TSR499D50-S4 | 499.5 | 1.2 | QCC8C | |
| TSR500D00-D2 | 500 | 1.1 | | F-11 |
| TSR567D00-D1 | 567 | 5.0 | | TO-39 |
| TSR585D00-D2 | 585 | 1.8 | | F-11 |
| TSR622D08A-D1 | 622.08 | 1.5 | | TO-39 |
| TSR622D08B-S7 | 622.08 | 1.5 | DCC6 | |
| TSR643D75-S4 | 643.75 | 1.5 | QCC8C | |
| TSR680D00-D2 | 680 | 0.9 | | F-11 |
| TSR755D00-S7 | 755 | 1.2 | DCC6 | |
| TSR801D125-S7 | 801.125 | 1.2 | DCC6 | |
| TSR809D00A-D1 | 809 | 1.2 | | TO-39 |
| TSR809D00B-S4 | 809 | 1.3 | QCC8C | |
| TSR820D00-S9 | 820 | 1.4 | DCC6C | |
| TSR854D00-S7 | 854 | 1.2 | DCC6 | |
| TSR857D30-D1 | 857.3 | 1.0 | | TO-39 |
| TSR857D65A-D1 | 857.65 | 2.8 | | TO-39 |
| TSR857D65B-S5 | 857.65 | 1.2 | QCC4A | |
| TSR858D00-S7 | 858 | 1.4 | DCC6 | |
| TSR863D00-D1 | 863 | 1.0 | | TO-39 |
| TSR864D00-D1 | 864 | 1.0 | | TO-39 |
| TSR868D00A-D1 | 868 | 1.2 | | TO-39 |
| TSR868D00B-S4 | 868 | 1.5 | QCC8C | |
| TSR868D00C-S9 | 868 | 1.3 | DCC6C | |
| TSR868D30A-D1 | 868.3 | 1.2 | | TO-39 |
| TSR868D30B-S4 | 868.3 | 1.5 | QCC8C | |
| TSR868D30C-S9 | 868.3 | 1.5 | DCC6C | |
| TSR868D35A-D1 | 868.35 | 1.2 | | TO-39 |
| TSR868D35B-D2 | 868.35 | 1.3 | | F-11 |
| TSR868D35C-D3 | 868.35 | 1.2 | | D-11 |
| TSR868D35D-S4 | 868.35 | 1.6 | QCC8C | |
| TSR868D35E-S6 | 868.35 | 1.0 | QCC8B | |
| TSR868D35F-S9 | 868.35 | 1.5 | DCC6C | |
| TSR868D35G-S5 | 868.35 | 1.7 | QCC4A | |
| TSR868D75-S4 | 868.75 | 1.8 | QCC8C | |

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|---------------|--------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR868D95A-D1 | 868.95 | 1.3 | | TO-39 |
| TSR868D95B-S4 | 868.95 | 1.8 | QCC8C | |
| TSR868D95C-S9 | 868.95 | 1.6 | DCC6C | |
| TSR902D30-S4 | 902.3 | 1.3 | QCC8C | |
| TSR902D50-S4 | 902.5 | 1.3 | QCC8C | |
| TSR904D30A-D1 | 904.3 | 2.8 | | TO-39 |
| TSR904D30B-S5 | 904.3 | 3.4 | QCC4A | |
| TSR905D80-S4 | 905.8 | 1.5 | QCC8C | |
| TSR910D00-S4 | 910 | 1.2 | QCC8C | |
| TSR912D00A-D1 | 912 | 1.3 | | TO-39 |
| TSR912D00B-S4 | 912 | 1.5 | QCC8C | |
| TSR912D00C-S7 | 912 | 1.0 | DCC6 | |
| TSR914D50A-S4 | 914.5 | 1.8 | QCC8C | |
| TSR914D50B-S5 | 914.5 | 2.0 | QCC4A | |
| TSR915D00A-D1 | 915 | 1.6 | | TO-39 |
| TSR915D00B-S5 | 915 | 1.6 | QCC4A | |
| TSR915D00C-S4 | 915 | 1.8 | QCC8C | |
| TSR915D00D-S9 | 915 | 1.3 | DCC6C | |
| TSR916D50A-D1 | 916.5 | 1.2 | | TO-39 |
| TSR916D50B-S5 | 916.5 | 1.5 | QCC4A | |
| TSR916D50C-S4 | 916.5 | 1.5 | QCC8C | |
| TSR925D00-S4 | 925 | 2.4 | QCC8C | |
| TSR927D00-S7 | 927 | 1.3 | DCC6 | |
| TSR927D20-S7 | 927.2 | 1.3 | DCC6 | |
| TSR930D50-D1 | 930.5 | 1.3 | | TO-39 |
| TSR980D00A-D1 | 980 | 1.3 | | TO-39 |
| TSR980D00B-S5 | 980 | 1.5 | QCC4A | |
| TSR980D00C-S4 | 980 | 1.5 | QCC8C | |

Two Port Resonators

for Automotive Electronics & Remote Control (TSR) Two Port Type

| Part Number | Center Freq. (MHz) | IL(dB) | Package | |
|----------------|-----------------------|--------|----------|----------|
| | | | SMD Type | DIP Type |
| TSR217D25-D1 | 217.25 | 4.5 | | TO-39 |
| TSR284D00-D1 | 284 | 5.0 | | TO-39 |
| TSR310D00-D1 | 310 | 5.5 | | TO-39 |
| TSR315D00A-D1 | 315 | 5.0 | | TO-39 |
| TSR315D00B-D2 | 315 | 5.0 | | F-11 |
| TSR315D00C-S4 | 315 | 5.0 | QCC8C | |
| TSR380D00A-D1 | 380 | 6.0 | | TO-39 |
| TSR380D00B-S11 | 380 | 5.5 | F11SMD | |
| TSR384D05-D1 | 384.05 | 6.0 | | TO-39 |
| TSR392D00-D1 | 392 | 5.5 | | TO-39 |
| TSR403D55A-D1 | 403.55 | 6.0 | | TO-39 |
| TSR403D55B-S4 | 403.55 | 5.0 | QCC8C | |
| TSR418D00A-D1 | 418 | 6.0 | | TO-39 |
| TSR418D00B-S4 | 418 | 6.0 | QCC8C | |
| TSR423D22-D1 | 423.22 | 6.0 | | TO-39 |
| TSR433D42-D1 | 433.42 | 6.0 | | TO-39 |
| TSR433D92A-D1 | 433.92 | 6.0 | | TO-39 |
| TSR433D92B-D2 | 433.92 | 6.0 | | F-11 |
| TSR433D92C-S4 | 433.92 | 6.0 | QCC8C | |
| TSR433D92D-S5 | 433.92 | 6.0 | QCC4A | |
| TSR433D92E-S7 | 433.92 | 6.5 | DCC6 | |
| TSR780D00-S4 | 780 | 6.5 | QCC8C | |
| TSR824D25-D1 | 824.25 | 6.5 | | TO-39 |
| TSR865D00-D1 | 865 | 6.0 | | TO-39 |
| TSR868D30-D1 | 868.3 | 6.0 | | TO-39 |
| TSR868D30-S4 | 868.3 | 6.0 | QCC8C | |
| TSR868D35-S4 | 868.35 | 6.5 | QCC8C | |
| TSR873D00-S4 | 873 | 7.0 | QCC8C | |
| TSR906D00-D1 | 906 | 6.5 | | TO-39 |
| TSR915D00-S4 | 915 | 6.5 | QCC8C | |
| TSR916D50-S4 | 916.5 | 6.5 | QCC8C | |
| TSR934D00-D1 | 934 | 7.0 | | TO-39 |
| TSR1090D00-D1 | 1090 | 6.5 | | TO-39 |

Order Codes

Order Codes (TSR)

| TSR | 224D50 | A | S1 |
|-------------|-------------------|------------|---------|
| Part Number | Center Freq.(MHz) | Series No. | Package |
| 224D50 | 224.5 MHz | None | S1 |
| 306D00 | 306 MHz | A | S2 |
| 384D05 | 384.05 MHz | B | D1 |
| | | C | D2 |
| | | D | D3 |

▶ General Information**| Advantage of Token Saw Devices**

Token Electronics has gained a successful development of Saw components, due to our flexible design capabilities and cost-optimizing production facilities. In addition to our extensive offering of standard Saw devices, Token has diverse Engineering experience spanning hundreds of custom designed saw components, Band pass Filters, Low Loss Filters and saw based subsystems.

As Token Company Spirit:

- Honesty is our business policy.
- Perfection is our quality system.
- Sharing cost saving with customers is our business target.

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