

Shoulder 好达

SHOULDER ELECTRONICS CO., LTD.

SAW Components Data Sheet

PRODUCT 产 品: SAW RESONATOR

MODEL NO 型 号: HDR□□□M SMD-20

PREPARED 编 制:

CHECKED 审 核:

APPROVED 批 准:

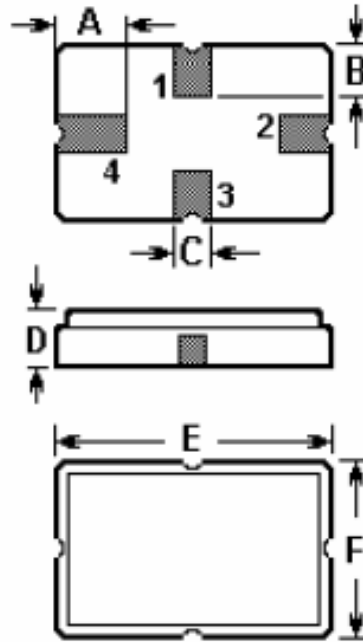
DATE 日 期: 2007-01-25

1.SCOPE

This specification shall cover the characteristics of 1-port SAW resonator used for remote-control security.

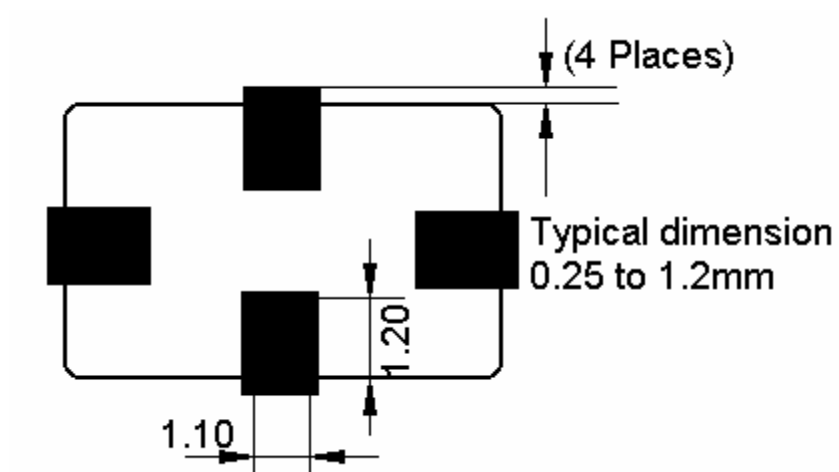
2. DIMENSION

2-1 Typical dimension(unit: mm)

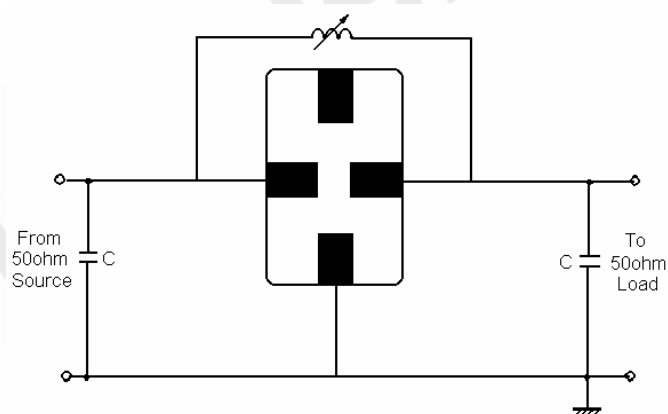


Sign	Data (unit: mm)	Sign	Data (unit: mm)
A	1.2 ± 0.1	D	1.4 ± 0.1
B	0.8 ± 0.1	E	5.0 ± 0.1
C	0.5	F	3.5 ± 0.1

Pin	Configuration
1	Input / Output
3	Output / Input
2/4	Case Ground



3. TEST CIRCUIT



4.Electrical characteristics

Part number		min	typ	max	unit
Center Frequency		Table 1			
Insertion Loss			1.5	2.5	dB
Quality Factor Unload Q			11.000		
50 Ω Loaded Q			2.000		
Temperature Stability	Turnover Temperature		39		$^{\circ}\text{C}$
	Turnover Frequency		$f_0 \pm 2.7$		KHz
	Freq.temp.Coefficient		0.032		ppm/ $^{\circ}\text{C}^2$
Frequency Aging			$< \pm 10$		ppm/yr
DC. Insulation Resistance		1.0			M Ω
RF Equivalent RLC Model	Motional Resistance R1		10	26	Ω
	Motional Inductance L1		86		μH
	Motional Capacitance C1		1.56		pF
Shunt Static Capacitance		1.7	2.0	2.3	pF

Table 1

F ₀ (MHz)	Frequency accuracy (KHz)	F ₀ (MHz)	Frequency accuracy (KHz)
292.000	± 75	424.825	± 75
293.125	± 75	426.062	± 75
300.000	± 75	426.275	± 75
302.000	± 75	430.500	± 75
303.825	± 75	430.650	± 75
303.875	± 75	431.705	± 75
304.300	± 75	431.900	± 75
305.000	± 75	433.385	± 75
307.300	± 75	433.420	± 75
308.500	± 75	433.650	± 75
310.000	± 75	433.920	± 75
311.063	± 75	433.950	± 75
314.200	± 75	434.420	± 75
314.500	± 75	434.520	± 75
315.000	± 75	435.200	± 75
315.050	± 75	435.800	± 75
315.500	± 75	437.500	± 75
316.800	± 75	435.700	± 75
317.500	± 75	447.275	± 75
318.000	± 75	447.325	± 75
319.300	± 75	447.625	± 75
319.500	± 75	447.675	± 75
320.000	± 75	447.725	± 75
325.000	± 75	479.500	± 75
330.000	± 75	497.500	± 75
335.100	± 75	824.000	± 250
340.000	± 75	842.000	± 250
342.000	± 75	857.650	± 250
345.000	± 75	866.000	± 250
360.000	± 75	868.000	± 250
372.000	± 75	868.300	± 250
372.500	± 75	868.320	± 250
380.000	± 75	868.350	± 250
383.160	± 75	868.500	± 250
390.000	± 75	868.750	± 250
395.000	± 75	868.950	± 250
396.000	± 75	887.000	± 250
401.250	± 75	905.800	± 250
403.050	± 75	914.000	± 250
403.550	± 75	914.500	± 250
407.300	± 75	915.000	± 250

417.500	± 75	916.300	± 250
418.000	± 75	916.500	± 250
420.000	± 75	916.800	± 250
423.220	± 75	927.000	± 250
423.920	± 75		

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