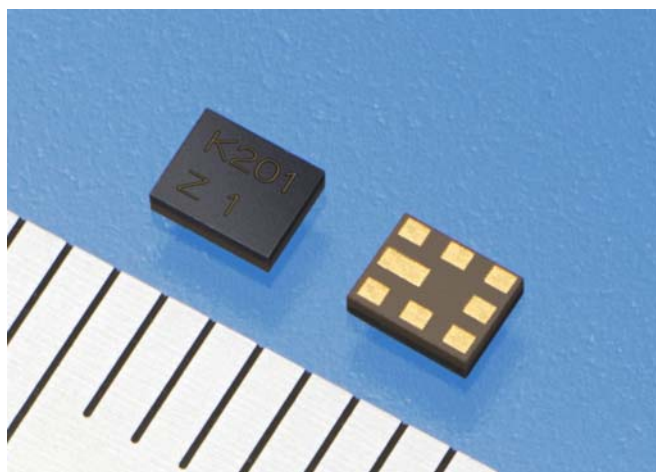


<Technical Note>

JAPAN CDMA/US CDMA SAW Duplexer “SD25 Series”



SAW Duplexer “SD25 Series”

Kyocera introduces CSP (Chip Size Package) type duplexer constructed by placing a SAW element, minimized with unique simulation technology, directly on ceramic substrate, and then sealed and coated with resin. Optimizing the combination of the SAW element and the substrate enables the duplexer to be as small as 2.5 x 2.0 x 0.8mm (typical value), making it the smallest duplexer in the industry. The product exhibits excellent resistance to climate and shocks because of its hermetic sealing with solder along the peripheral of the element mounted on the substrate.

[Features]

1. World Smallest Size* *As of Jan., 2007.
(2.5 x 2.0 x 0.8 mm typ.)

2. Built-in Matching Circuit

- Simplifies Circuit Design
- Reduces the Number of Components
- Reduces Component Assembly Space

3. High Reliability by Hermetic Sealing

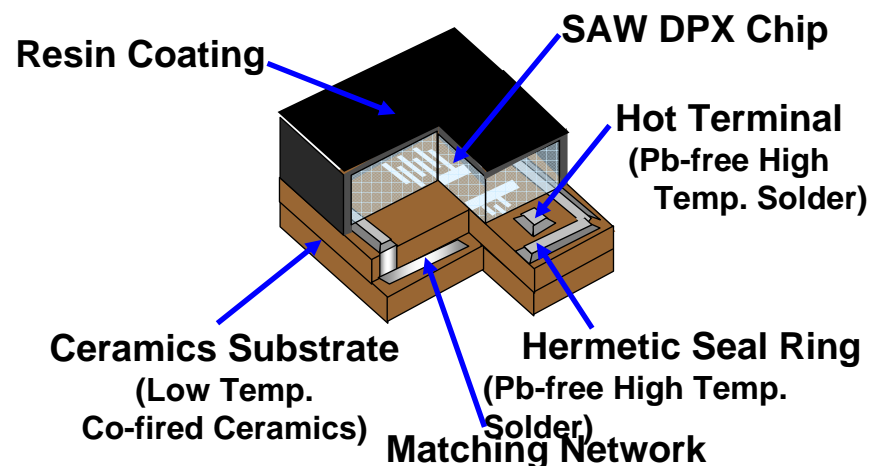
- Excellent Resistance to
Climate and Shocks

4. Low Loss and High Isolation

5. High Productivity

6. Pb Free, RoHS Compliant

[Structure]

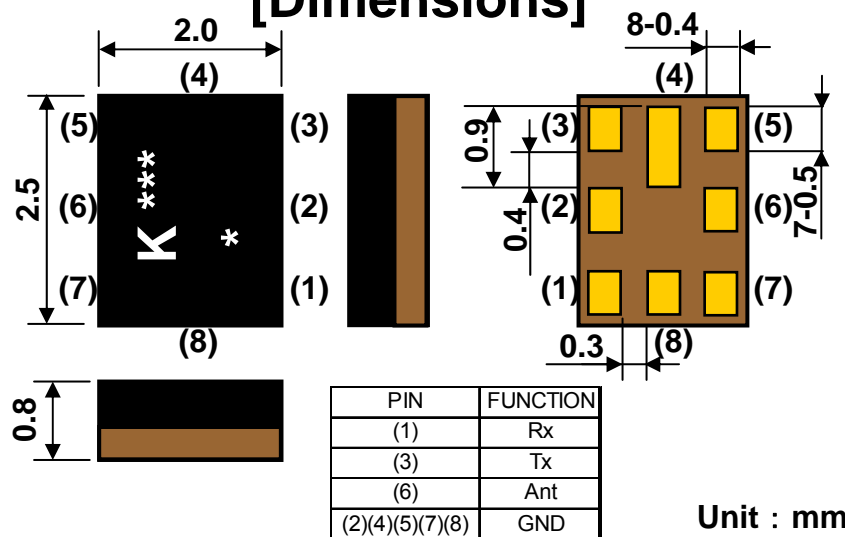


[Part Number]

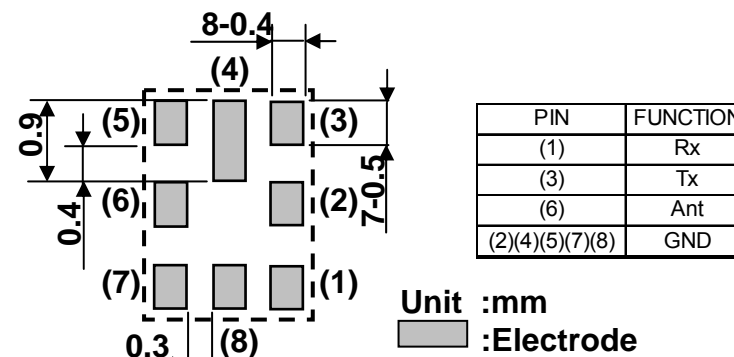
SD 25 - 0836 R 8 UU 01
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type of Product (SAW Duplexer)
- ② Package Size
- ③ Frequency
- ④ Direction of Tx/Rx Port
- ⑤ Terminals
- ⑥ Input/Output Condition
- ⑦ Custom Specification (Standard)

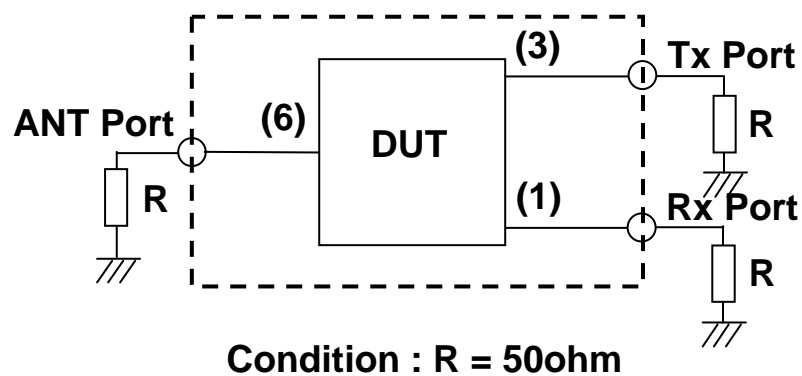
[Dimensions]



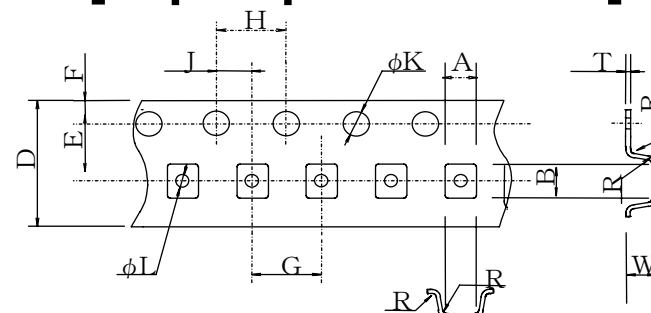
[Recommended Land Pattern]



[Test Circuit]



[Tape Specifications]



Part	A	B	D	E	F
Dimensions	2.4±0.1	2.9±0.1	8.0±0.2	3.5±0.05	1.75±0.1
Part	G	H	J	ϕK	ϕL
Dimensions	4.0±0.1	4.0±0.1	2.0±0.05	1.50±0.1	1.1±0.1
Part	R	W	T		
Dimensions	0.3 MAX	1.15±0.1	0.25±0.05		

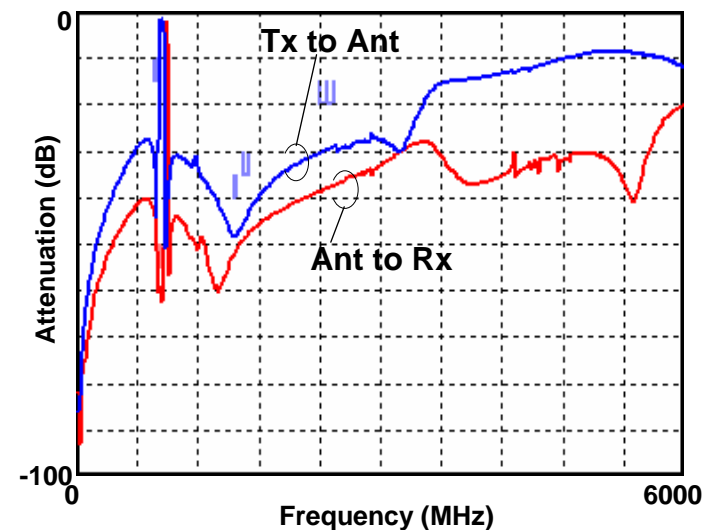
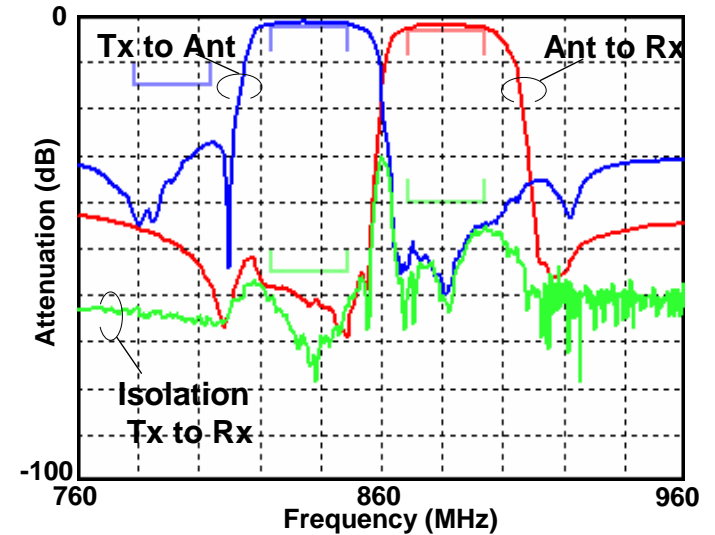
Unit : mm

Electrical Characteristics

P/N : SD25-0836R8UU

<US CDMA>

Items		Frequency	Specifications		Unit	
			min.	max.		
Tx to ANT	Insertion Loss	824-849MHz	-	2.3	dB	
	Ripple		-	1.0		
	VSWR(Tx)		-	2.0		
	VSWR(Ant)		-	2.0		
	Attenuation		779-804MHz	15	-	dB
			869-894MHz	40	-	
			1570-1580MHz	40	-	
		1648-1698MHz	35	-		
		2400-2480MHz	20	-		
		2472-2547MHz	20	-		
ANT to Rx	Insertion Loss	869-894MHz	-	3.3	dB	
	Ripple		-	1.5		
	VSWR(Rx)		-	2.0		
	VSWR(Ant)		-	2.0		
	Attenuation		824-849MHz	55	-	dB
		869-894MHz	40	-		
Tx to Rx	Isolation					
Input/Output impedance			50(Unbalance)		Ohm	



Electrical Characteristics

P/N : SD25-0827R8UU

<JAPAN CDMA>

Items		Frequency	Specifications		Unit
			min.	max.	
Tx to ANT	Insertion Loss	824-830MHz	-	2.3	dB
	Ripple		-	1.0	dB
	VSWR(Tx)		-	2.0	-
	VSWR(Ant)		-	2.0	-
	Attenuation	0-770MHz	30	-	dB
		843-870MHz	20	-	dB
		869-875MHz	35	-	dB
		1574-1577MHz	40	-	dB
1648-1660MHz		30	-	dB	
2110-2130MHz	30	-	dB		
2472-2490MHz	27	-	dB		
ANT to Rx	Insertion Loss	869-875MHz	-	2.3	dB
	Ripple		-	1.0	dB
	VSWR(Rx)		-	2.0	-
	VSWR(Ant)		-	2.0	-
	Attenuation	824-830MHz	45	-	dB
		898-925MHz	42	-	dB
1920-1980MHz		35	-	dB	
2400-2484MHz		30	-	dB	
Tx to Rx	Isolation	824-830MHz	55	-	dB
		869-875MHz	44	-	dB
Input/Output impedance			50(Unbalance)		Ohm

