

MPD0306S2

Power Splitters/Combiners

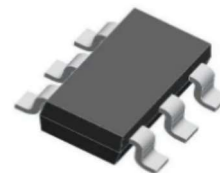
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APPLICATIONS

1. Multi-frequency signal combined
2. Indoor antenna distribution system Balanced Amplifiers
3. Multi-frequency Small Cell & Pico

Features

1. Low Insertion Loss 0.8dB typ based on IPD technology
2. Based on IPD technology
3. High isolation
4. Frequency covers a wide range of applications



SOT23-6

Description

The MPD0306S2 is a low cost, high performance two ways power splitters in an easy to use surface mount package. It is ideal for multi-frequency signal combined, indoor antenna distribution system and multi-frequency Small Cell & Pico. MPD0306S2 is Based on IPD technology which possess excellent electrical and mechanical stability. All components are 100% RF tested.

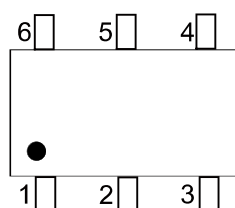
Characteristics 1)

Item	Min.	Type.@25°C	Max.	Unit
Frequency Range	300		600	MHz
isolation	18	20		dB
Insertion Loss		0.8	1.5	dB
Phase Unbalance	-5	2	+5	degrees
Amplitude	-0.5	0.2	+0.5	dB
VSWR (:1)		1.2	1.5	:1
Operating Temp.	-55		+105	°C
Power			2	W

1) All the above data are based on specified demo board and tested in 25° environment.

PORT CONFIGURATIONS

Figure 1. MPD0306S2 (Top View)



Pin #	Connection
1	GND
2	IN
3	GND
4	OUT
5	GND
6	OUT

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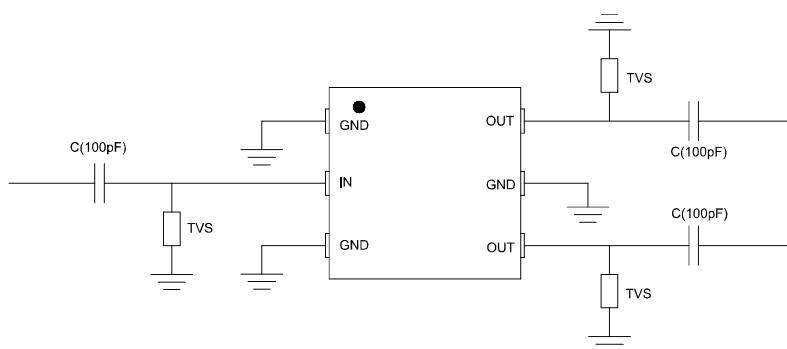
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2) Suggest to add a TVS Diode in parallel between electrode and Capacitors external connected to electrode to prevent DC signal entry to guarantee parts normal work.

Figure 2. MPD0306S2 Suggested Circuits



Typical Performance 25°C: (300-600 MHz)

Figure 3. MPD0306S2 Insertion Loss

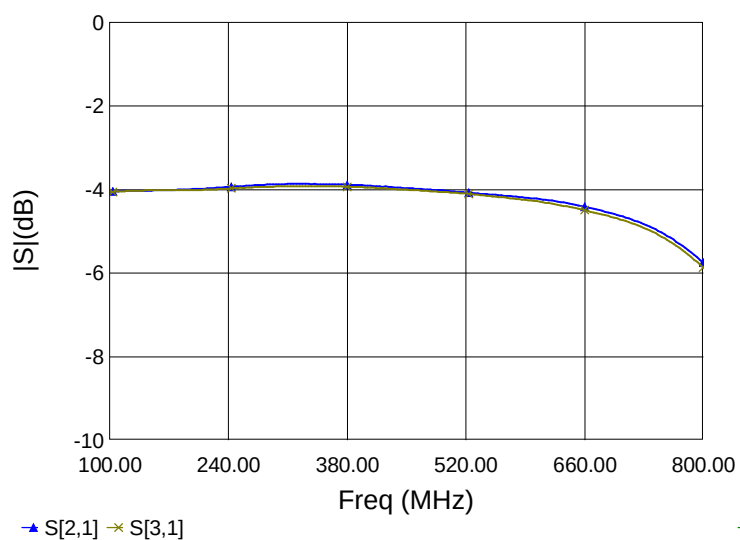
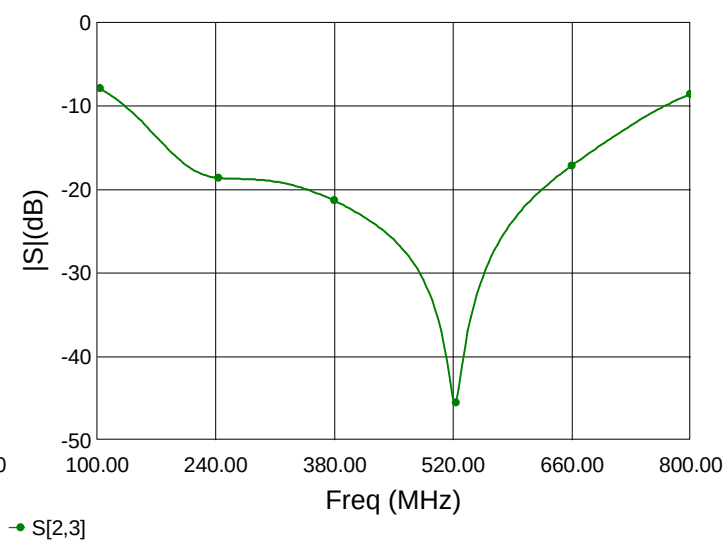


Figure 4. MPD0306S2 Isolation



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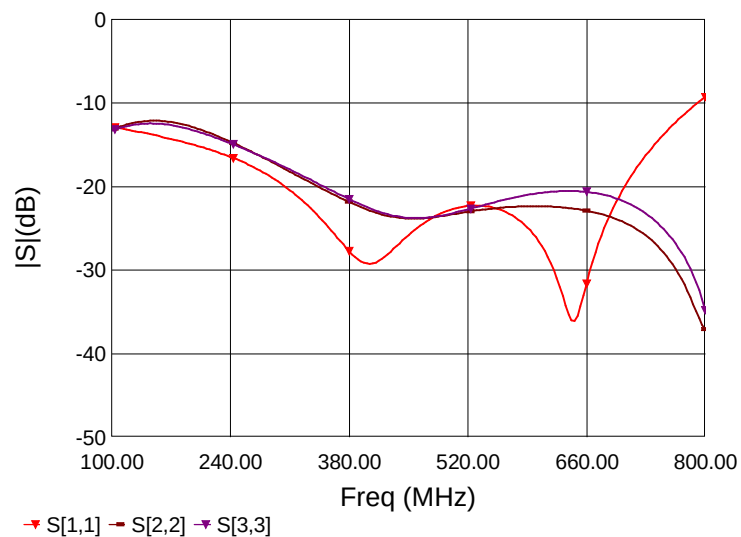
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Figure 5. MPD0306S2 Return Loss



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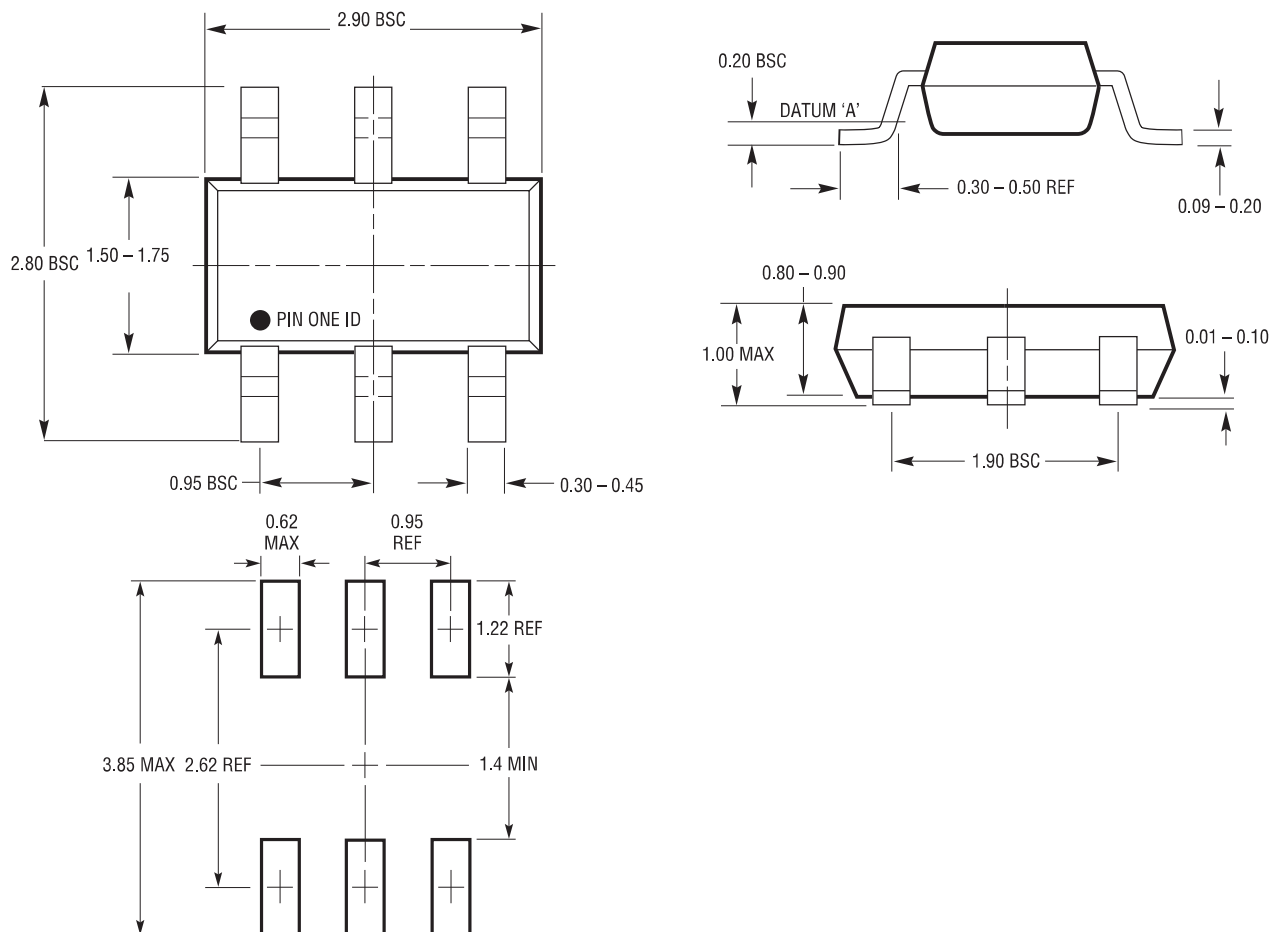
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Outline Drawing

Figure 6. MPD0306S2 Outline Drawing and Recommended PCB Layout



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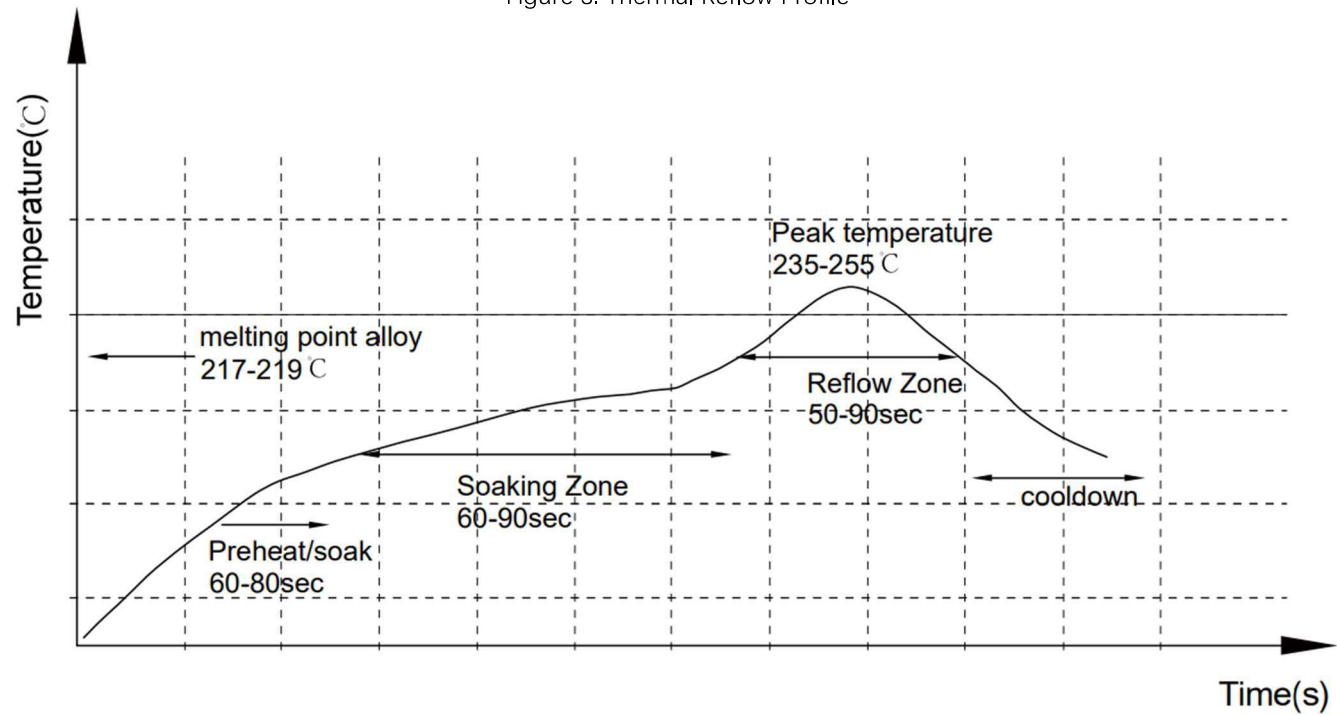
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REFLOW PROFILE

Figure 8. Thermal Reflow Profile



	Ramp Up	Pre-Heating	Peak	Soaking
Temperature(°C)	T1:160±5°C	T2:180±5°C	T4:260±5°C	T3:230±5°C
Time(sec)	t1:60±5sec	t2:100±15sec	t3:30±5sec	t4:60±10sec

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Device	Package	Reel	Shipping
MPD0306S2	SOT23-6	7"	3000/Tape & Reel

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Revision	Description	Date
Rev0	Preliminary	2022/03/21

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