

Approved by:

Checked by:

Issued by:

SPECIFICATION

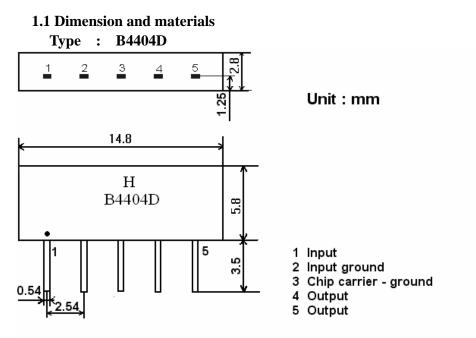
PRODUCT: SAW FILTER

MODEL: HB4404D (X6941D) SIP5D

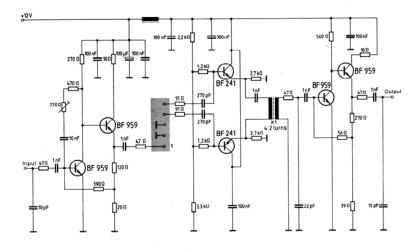
HOPE MICROELECTRONICS CO., LIMITED

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1.Construction



1.2. Circuit construction, measurement circuit



Test circuit for SIP-5 filter Input impedance of the symmetrical post-amplifier: 2 k Ω in parallel with 3 pF

2. Characteristics

Standard atmospheric conditions

Unless otherwise specified, the standard rang of atmospheric conditions for making measurements and tests is as follows;

Ambient temperature	: 15° C to 35° C
Relative humidity	: 25% to 85%
Air pressure	: 86kPa to 106kPa

Operating temperature rang

Operating temperature rang is the rang of ambient temperatures in which the filter can be

operated continuously. -10° C ~ $+60^{\circ}$ C

Storage temperature rang

Storage temperature rang is the rang of ambient temperatures at which the filter can be stored

without damage.

Conditions are as specified elsewhere in these specifications. -40° C ~ $+70^{\circ}$ C

Reference temperature +25 °C

2.1 Maximum Rating

DC voltage	VDC	12	V	Between any terminals
AC voltage	Vpp	10	V	Between any terminals

2.2 Electrical Characteristics

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Source impeda	ance	$Zs=50 \Omega$				
Load impedan	ice	Z _L =2k	Ω //3pF and	l matching	network	$T_A=25^{\circ}C$
Item	1	Freq	min	typ	max	
Center free	quency	Fo	-	44.00	-	MHz
Insertion att Reference		44.00MHz	17.7	19.7	21.7	dB
Amplitude ripple (p-p) 41.60 46.40 MHz			0.5		dB	
	40.75MHz	25.0	32.0	-	dB	
		41.31MHz	0.6	1.6	2.6	dB
		41.43MHz	-0.9	0.3	1.5	dB
Relative attenuation	41.60MHz	-0.7	0.1	0.8	dB	
	46.40MHz	-0.7	0.1	0.8	dB	
		46.57MHz	-0.7	0.6	1.5	dB
		46.69MHz	0.8	2.0	3.2	dB
	47.25MHz	25.0	36.0	-	dB	
35.00~39.10MHz		32.0	40.0	-	dB	
Sidelobe 47.65-	39.10~	40.35MHz	26.0	32.0	-	dB
	47.65~	48.65MHz	24.0	30.0		dB
	48.65~	55.00MHz	30.0	37.0		dB
Tempe	erature coeff	ficient		-18		ppm/k

2.5 Environmentar i er formanee enar	
Item Test condition	Allowable change of absolute
	Level at center frequency(dB)
High temperature test	.10
70°C 1000H	< 1.0
Low temperature test	.10
-40°С 1000Н	< 1.0
Humidity test	- 1.0
40°C 90-95% 1000H	< 1.0
Thermal shock	
$-20^{\circ}C == 25^{\circ}C == 80^{\circ}C 20$ cycle	< 1.0
30M 10M 30M	
Solder temperature test	< 1.0
Sold temp.260 $^{\circ}$ C for 10 sec.	< 1.0
Soldering	More then 95% of total
Immerse the pins melt solder	area of the pins should
at $260^{\circ}C+5/-0^{\circ}C$ for 5 sec.	be covered with solder

2.3 Environmental Performance Characteristics

2.4 Mechanical Test

Item	Allowable change of absolute
Test condition	Level at center frequency(dB)
Vibration test	
600-3300rpm amplitude 1.5mm	<1.0
3 directions 2 H each	
Drop test	<1.0
On maple plate from 1 m high 3 times	<1.0
Lead pull test	<1.0
Pull with 1 kg force for 30 seconds	<1.0
Lead bend test	<1.0
90° bending with 500g weigh 2 times	<1.0

2.5 Voltage Discharge Test

Item	Allowable change of absolute
Test condition	Level at center frequency(dB)
Surge test	
Between any two electrode	
100V 1000pF 4Mohm	<1.0