

CSP package Class-D Mono Speaker Amplifier Series

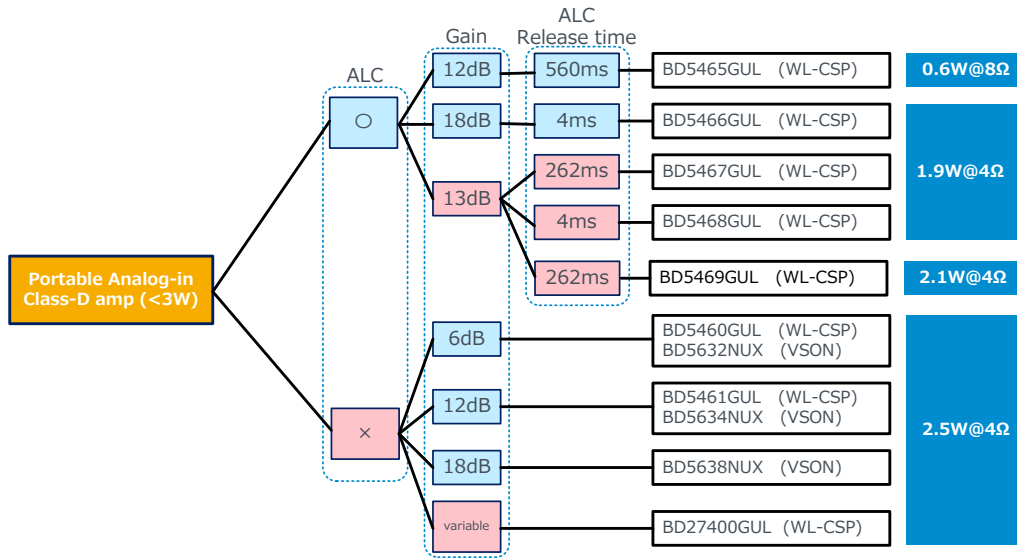
BD546xGUL/BD27400GUL Evaluation Board Information

BD546xGUL-EVK-001/BD27400GUL-EVK-001

● General

BD546xGUL series, BD27400GUL are a wafer-level CSP packaged low voltage monaural Class-D speaker amplifier for mobile phone, portable type electric devices.

BD5460/61GUL are a fixed gain type. BD27400GUL is a variable gain type, BD5465/66/67/68/69GUL are fixed gain with ALC type.



● Index

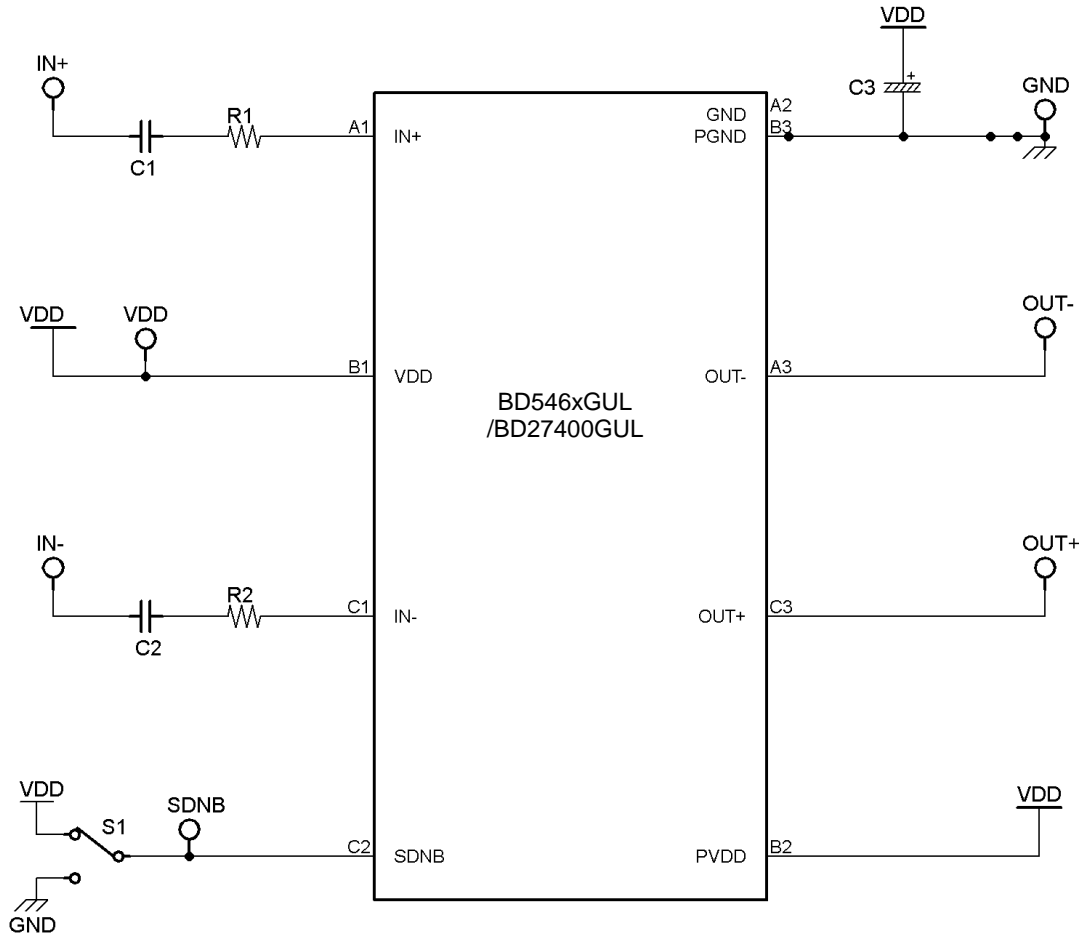
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● Conditions

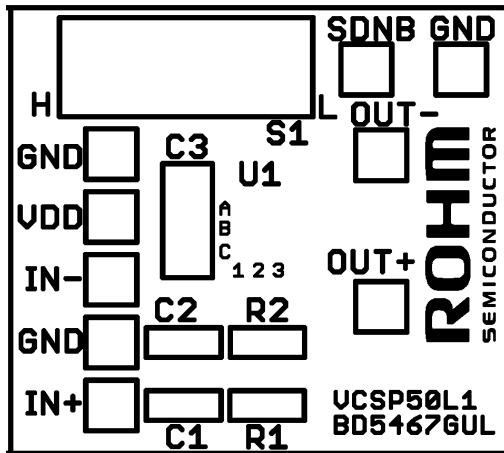
Item	Symbol	Range		Unit
		BD5460GUL BD5461GUL	BD27400GUL BD5465GUL BD5466GUL BD5467GUL BD5468GUL BD5469GUL	
Power Supply Voltage	V _{DD}	+2.5 ~ +5.5		V
Input Voltage	V _{IN}	-0.1 ~ V _{DD} +0.1	-0.3 ~ V _{DD} +0.3	V
Load impedance	R _L	4 ≤		Ω

This document is information of the evaluation board when we evaluated the device.
 This information will help you when designing your evaluation board.
 Notice, the evaluation board is not available for sale.

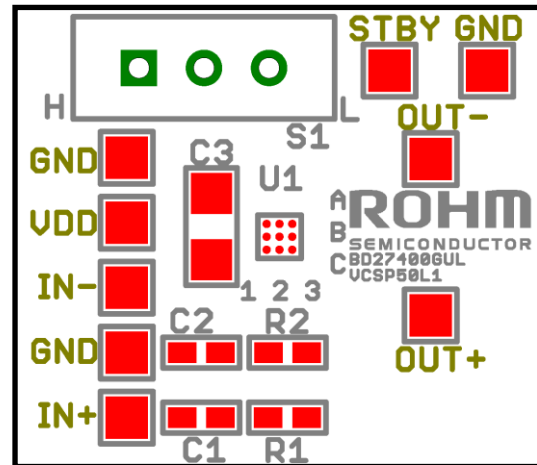
●Circuit Diagram



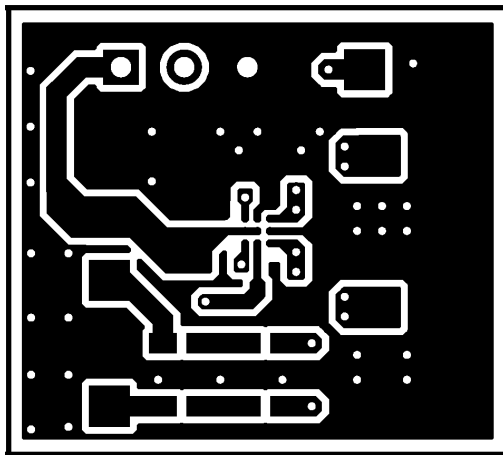
●PCB layout



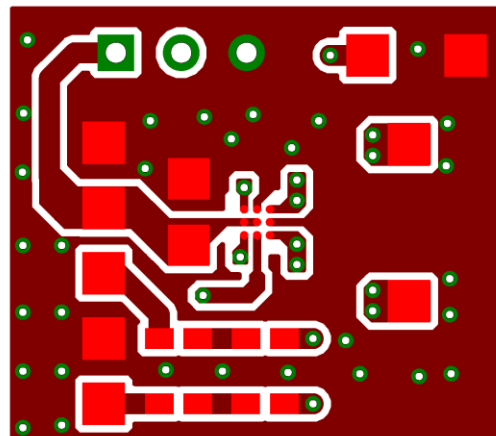
TOP SILKSCREEN (BD546xGUL) – TOP VIEW



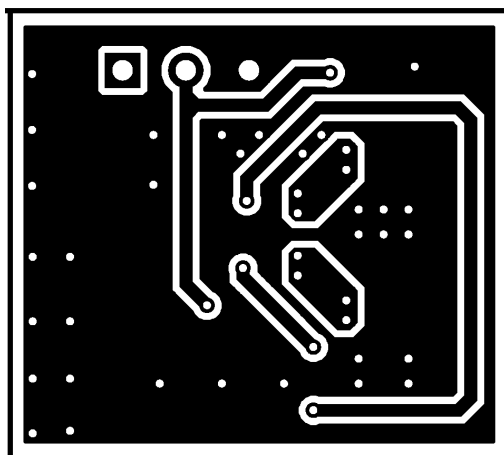
TOP SILKSCREEN (BD27400GUL) – TOP VIEW



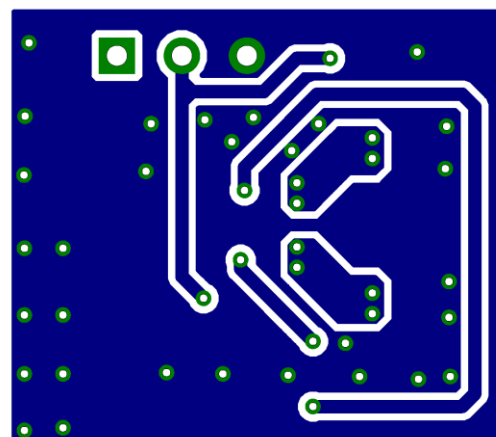
TOP LAYER (BD546xGUL) – TOP VIEW



TOP LAYER (BD27400GUL) – TOP VIEW

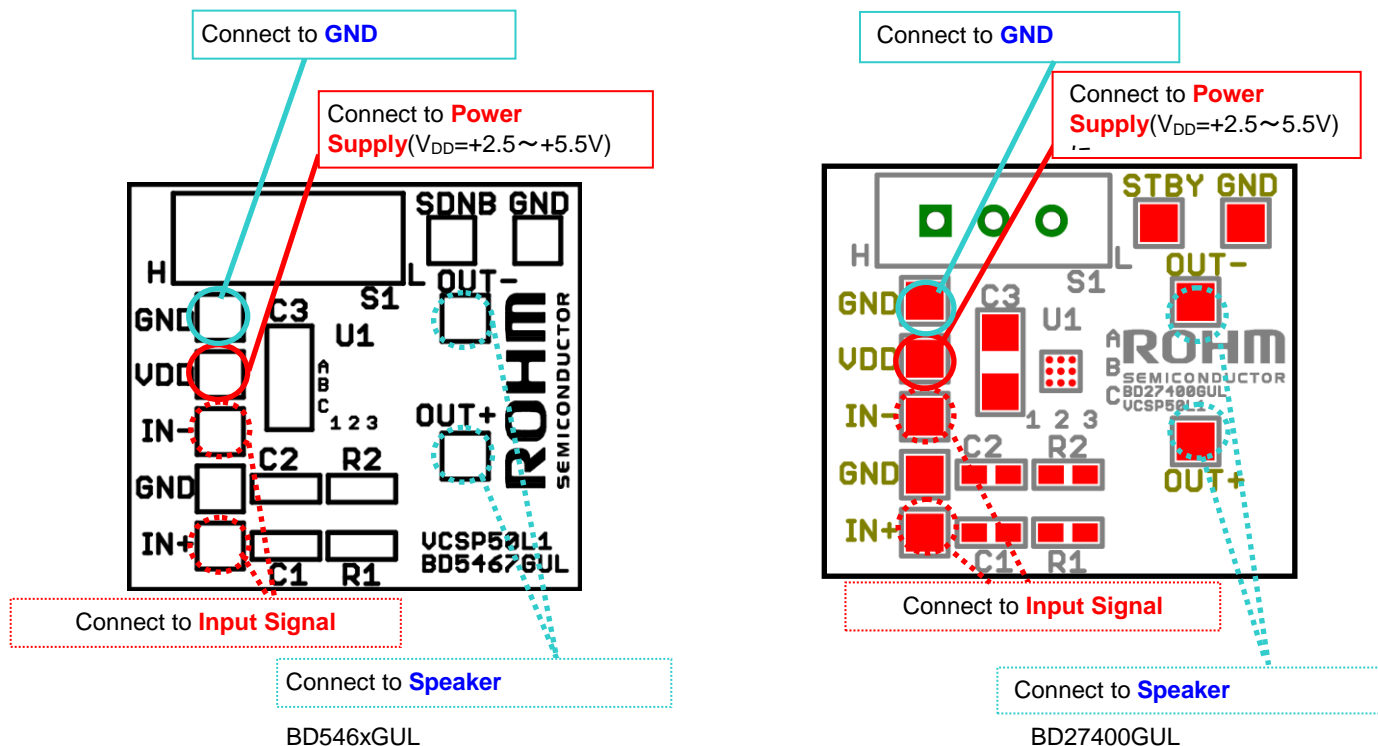


BOTTOM LAYER (BD546xGUL) – TOP VIEW



BOTTOM LAYER (BD27400GUL) – TOP VIEW

● Usage



● BOM List

· BD546xGUL

No.	Instance	Type	Value	Package/SMD Size
1	U1	IC	—	VCSP50L1
2	C1, C2	Ceramic Capacitor	0.1 μ F	1608
1	C3	Tantalum Capacitor	10 μ F	3216
2	R1, R2	Register	Short	—

· BD27400GUL

No.	Instance	Type	Value	Package/SMD size
1	U1	IC	—	VCSP50L1
2	C1, C2	Ceramic Capacitor	0.1 μ F	1608
1	C3	Tantalum Capacitor	10 μ F	3216
2	R1, R2	Register	150K Ω	1608

Our recommended LC filter parts are below.

【Coil】 L=22 μ H large current type. (TDK SLF12575T-220M4R0)

【Capacitor】 C=1 μ F Ceramic Capacitor

At this condition, $F_c=34kHz$

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