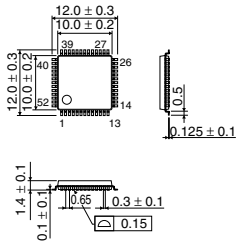
Signal processor LSI with pre-servo amplifier for CD players

BU9532KS2

● Description

BU9532KS2 is a digital signal processor LSI with built-in pre-servo amplifier developed for CD players. This built-in pre-servo amplifier is applied to the RW functions of the compact disc. Combining ROHM's BU24393 – a system micro controller with this new DSP BU9532KS2 provides an extremely simplified CD system.

● Dimension (Units : mm)



SQFP-T52

● Features

1) Built-in pre-servo amplifier for playing CD-RW
2) Tracking, Focus automatic control
3) Symmetry correction function
4) Built-in x8 over sampling filter + 1 bit DAC
5) Digital bass boost, soft mute function

● Applications

Portable CD players, CD radio cassette players

● Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Limits	Unit
Maximum applied voltage	Vcc	4.5	V
Power dissipation	Pd	850 *	mW
Operating temperature range	Topr	–25 ~ 75	˚C
Storage temperature range	Tstg	–55 ~ 125	˚C

*Derating : 8.5mW/˚C for operation above Ta=25˚C

● Recommended Operating Conditions (Ta=25˚C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating power supply voltage	V_{DD}	2.5	-	3.3	V

● Electrical characteristics (Unless otherwise noted; Ta=25˚C, Vcc=3.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current	Io	-	25	32	mA	
Audio-DAC distortion	THD	-	0.01	-	%	0dB,1KHz
Audio-DAC Dynamic range	DR	-	90	-	dB	-60dB,1KHz
Audio-DAC S/N rate	S/N	-	96	-	dB	
Servo-ADC Max. conversion voltage	V_{ADH}	1.0	1.2	1.4	V	
Servo-ADC Min. conversion voltage	V_{ADL}	-1.4	-1.2	-1.0	V	
Servo-DAC Max. output voltage	V_{DAH}	0.8	1.2	-	V	
Servo-DAC Min. output voltage	V_{DAL}	-	-1.2	-0.8	V	
RF amplifier Max. output amplitude	V_{RFH}	1.1	1.3	-	V	
RF amplifier Min. output amplitude	V_{RFL}	-	-1.3	-1.1	V	

● Block Diagram