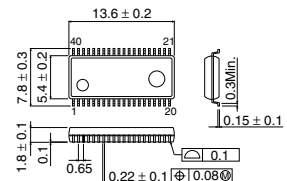


## RF amplifier for Car CD BH3514BFV

### ● Description

The BH3514BFV is a RF amplifier for Car CD players that has a built-in equalizer circuit (EQ). The equalizer circuit is applied to x1, x2 and x4 speeds. The equalizer circuit has improved characteristics, which will enhance the overall performance during mobile jitter conditions. Boost quantity and phase characteristics can also be controlled. Gain up SW for CD-R/RW is incorporated and is available for multi-reads. LD voltage can be switched in 3-steps. This RF amplifier is available for each pick.

### ● Dimension (Unit : mm)



**SSOP-B40**

### ● Features

- 1) For CD (x1, x2, x4 speeds)
- 2) Multi-read type (built-in gain up SW for CD-R/RW)
- 3) LD voltage changeable in 3 steps
- 4) Built-in electronic volume for control tracking and focus
- 5) Built-in EQ circuit has group delay characteristics of an improved type
- 6) Boost quantity and phase characteristic can be controlled

### ● Applications

CD-RW read type Car CD, Car CD with shock-proof function  
Other CD players

### ● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Max. applied voltage	Vcc	7	V
Power dissipation	Pd	850 *	mW
Operating temperature range	Topr	-40 ~ +85	°C
Storage temperature range	Tstg	-55 ~ +125	°C

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

### ● Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	Vcc	4.5	5.0	5.5	V

● Electrical characteristics (Unless otherwise noted; Ta=25°C, Vcc=5V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Consumption current at no load <sup>x1</sup>	I <sub>Q</sub>	14	19	24	mA	Normal gain, X1 speed
VRFE output voltage	VREF	V <sub>CCx0.45</sub>	V <sub>CCx0.5</sub>	V <sub>CCx0.55</sub>	V	
Summing amplifier gain 1 (Normal mode)	GRF1	4	6	8	dB	GCTL=Hi-Z, Low
Summing amplifier gain 2 (RW mode)	GRF2	18	21	24	dB	GCTL=High
AGC MAX gain	GAGC <sub>MAX</sub>	19	22	25	dB	
AGC operation level	AOPAGC1	1.0	1.2	1.4	V <sub>p-p</sub>	V <sub>CC</sub> =5V, f=500kHz, V <sub>IN</sub> =500mV <sub>p-p</sub>
Equalizer frequency characteristic 1 (X1speed)	Gf1	1.5	3	4.5	dB	f=144k/720k, BOOST=VBGX0.55, SPDCTL=High
Equalizer frequency characteristic 2 (X2speed)	Gf2	1.5	3	4.5	dB	f=288k/1.44M, SPDCTL=Low
Equalizer frequency characteristic 3 (X4speed)	Gf3	1.5	3	4.5	dB	f=576k/2.88M, SPDCTL=Hi-Z
RFDET detection level	VRFOET	70	100	130	mV <sub>p-p</sub>	f=500kHz, RFDET=H to L

● Application Circuit

