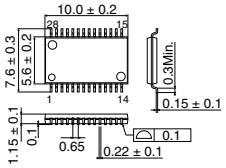
RF amplifier for Car CD

BH3515FV

●Description

BH3515FV is a RF amplifier for Car CD player that incorporates 3 speed equalization with gain switching and operating voltage of 3 ~ 5.5V. Equalizer circuit is applied to x1 time speed, x1.5 times speed, and x2 times speed. Gain switching pin is incorporated for CD-RW

●Dimension (Units : mm)



SSOP-B28

●Features

1) Multi-read type (CD, CD-R, CD-RW)
2) For x1speed, x1.5speed, x2speed
3) Operating power supply voltage range: 3V~5.5V

●Applications

CD, CD-R, CD-RW read type Car CD,
Car CD with shock-proof function

● Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Power supply voltage	Vcc	7.0	V
Power dissipation	Pd	800	mW
Operating temperature range	Topr	–40 ~ +85	℃
Storage temperature range	Tstg	–55 ~ +125	℃

Derating : 8.0mW/℃ for operation above Ta=25℃

● Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	V_{CC}	3.0	3.3	5.5	V

● Electrical characteristics (Unless otherwise noted; Ta=25°C, Vcc=3.3V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
No load consumption current	I_Q	15	20	25	mA	Normal gain
Adder amp. gain 1 (at normal)	G_{RF1}	4	6	8	dB	Normal gain
Adder amp. gain 2 (at RW)	G_{RF2}	16	18	20	dB	Gain up
AGC operation level 1	V_{OPAGC1}	580	700	820	mVp-p	VCC=3.3V, f=500kHz, VIN=500mVpp
AGC operation level 2	V_{OPAGC2}	0.95	1.15	1.35	Vp-p	VCC=5V, f=500kHz, VIN=500mVpp
Frequency characteristic 1	G_{f1}	2	3.5	5	dB	f=144k/720k, SPDCTL=Low (x1 speed)
Frequency characteristic 2	G_{f2}	2	3.5	5	dB	f=216k/1.08M, SPDCTL=Hi–Z (x1.5 speed)
Frequency characteristic 3	G_{f3}	2	3.5	5	dB	f=288k/1.44M, SPDCTL=High (x2 speed)
RFDET detection level	V_{RFDET}	70	100	130	mVp-p	f=500kHz, RFDET=H L

● Application Circuit

