Call Progress Tone Decoder for Telephone
BU8877/F

●Description

The BU8877 and BU8877F are ICs that detect dial tones from a call progress signal used in the telephone lines. The ICs detect dual signals 350Hz(from 345 to 355Hz)and 440Hz(from 435 to 445Hz).

●Features

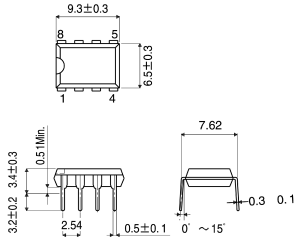
1) No malfunction by voice signal
2) Dual tone detection (350Hz and 440Hz)
3) Wide dynamic range
4) 3.58MHz crystal resonator

●Applications

Telephone, Codeless telephone and Facsimile for the U.S.

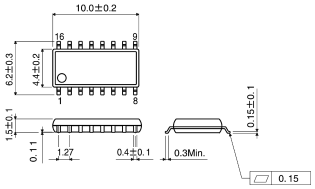
●Dimension(Units:mm)

BU8877



DIP8

BU8877F



SOP16

●Absolute Maximum Ratings (Ta=25˚C)

Parameter		Symbol	Limits	Unit
Power supply voltage		V_{CC}	7	V
Power dissipation	DIP8	Pd	800 *1	mW
	SOP16		300 *2	
Operating temperature range		Topr	-30 ~ +80	˚C
Storage temperature range		Tstg	-55 ~ +125	˚C

*1 Derating:8.0mW/˚C for operation above Ta=25˚C
*2 Derating:3.0mW/˚C for operation above Ta=25˚C

●Recommended Operating Conditions (Ta=25˚C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	V_{DD}	2.85	-	5.25	V

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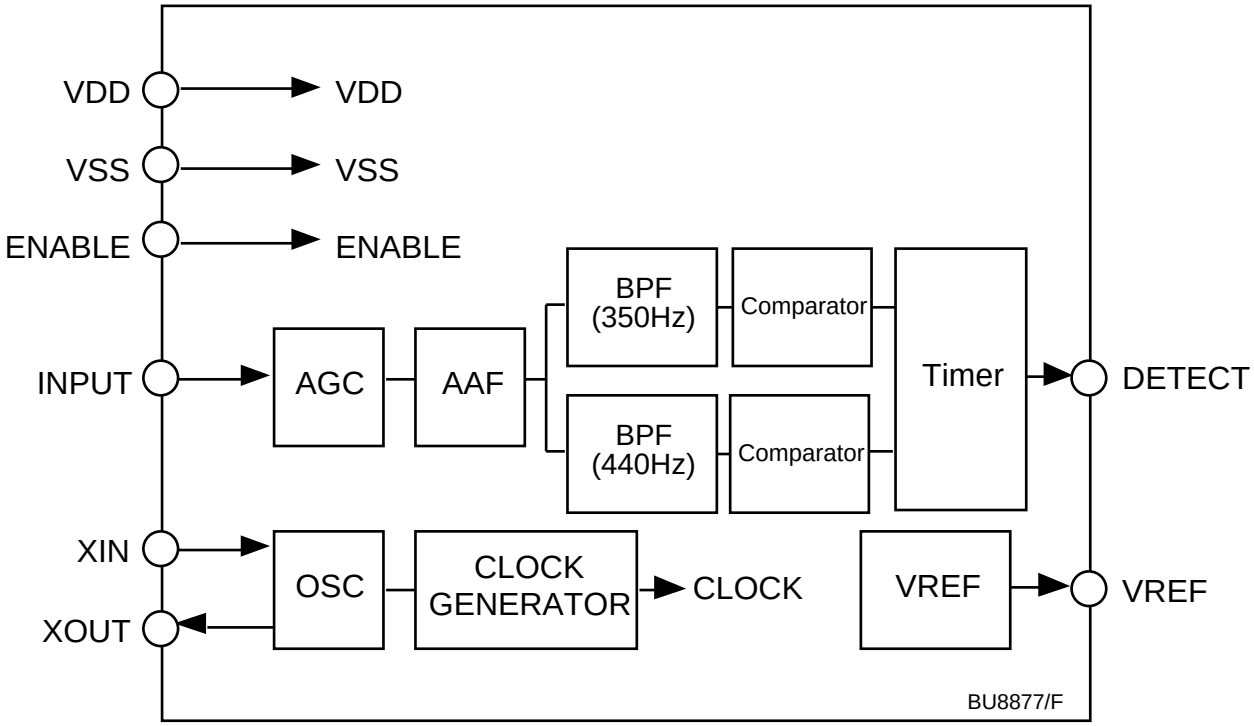
● Electrical characteristics (Unless otherwise noted, Ta=25˚C, V_{DD}= 5.0V, Xtal frequency=3.58MHz)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Supply current operation 2-1		I_{DD}2-1	-	3.7	5.0	mA	ENABLE="H"(V_{DD}=5.0V)
Minimum input signal level		VRECL	-38	-	-	dBm	Input frequency: Must detect frequency range VRECL, VRECH are proportional to VDD.
Maximum input signal level		VRECH	-	-	2	dBm	
Must not detect signal level		VREJ	-50	-	-	dBm	
Must detect frequency range	350Hz	fV350	345	350	355	Hz	Input signal level: 0dBm
	440Hz	fV440	435	440	445	Hz	
Input Impedance		Zin	-	100	-	kΩ	Input frequency: 100Hz~2000Hz
Call progress tone response time		t_{RES}	28	-	56	ms	
Call pogress tone de-response time		t_{DRES}	28	-	56	ms	
Detect duty ratio *		W_{DU}	35	50	65	%	

*Detect Duty Ratio which input signal (350Hz+440Hz) burst at 5Hz (Duty Ratio=50%)

● Block Diagram



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