

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

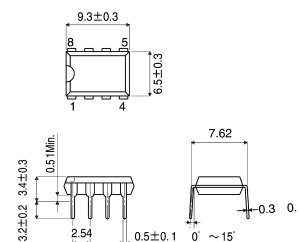
- 1) No malfunction by voice signal
- 2) Dual tone detection (350Hz and 440Hz)
- 3) Wide dynamic range
- 4) 3.58MHz crystal resonator

● Applications

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

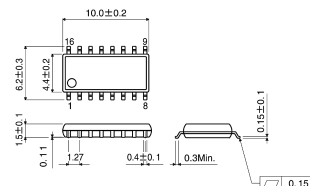
● Dimension(Units:mm)

BU8877



DIP8

BU8877F



SOP16

● Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Power supply voltage		V_{CC}	7	V
Power dissipation	DIP8	P_d	800 ^{*1}	mW
	SOP16		300 ^{*2}	
Operating temperature range		T_{opr}	-30 ~ +80	°C
Storage temperature range		T_{stg}	-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)

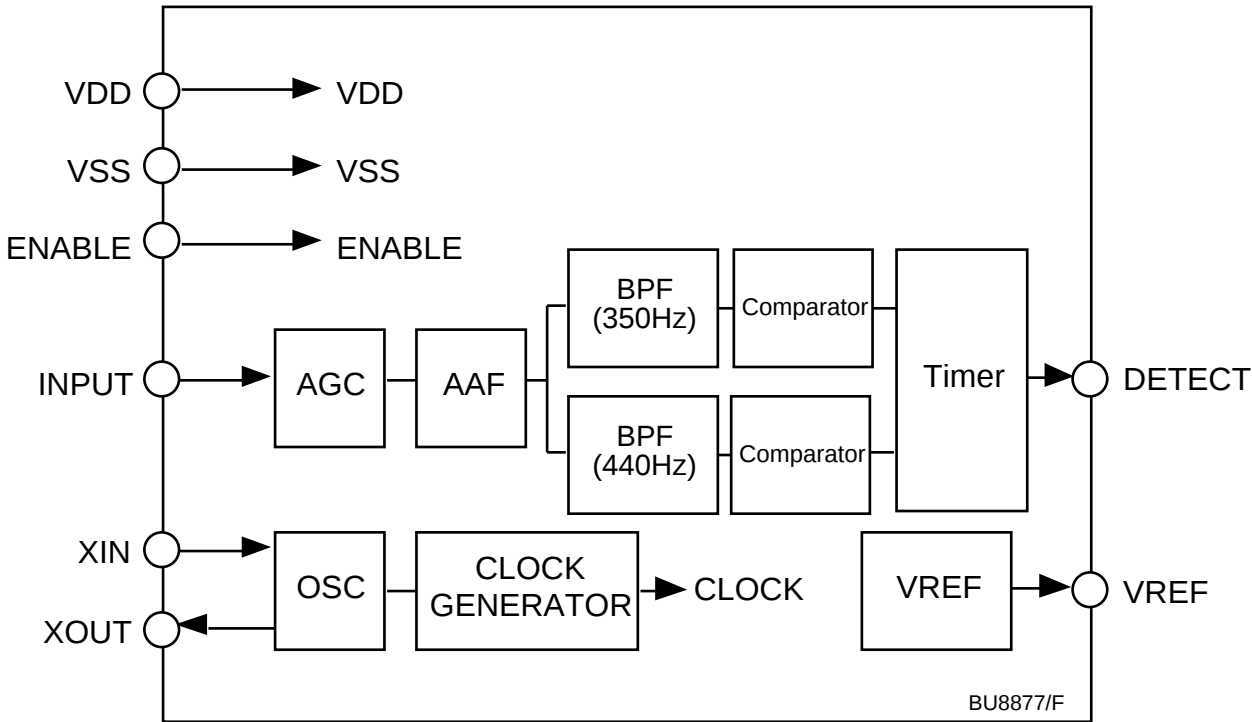
Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	V_{DD}	2.85	-	5.25	V

●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 _{DD2-1}	-	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		Z _{in}	-	100	-	kW	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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