

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

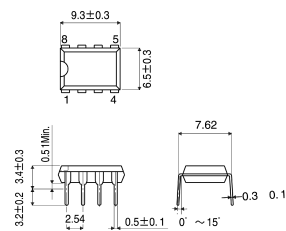
- 1) No malfunction by voice signal
- 2) Dual tone detection (350Hz and 440Hz)
- 3) Wide dynamic range
- 4) 3.58MHz crystal resonator

● Applications

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

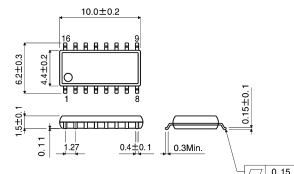
● Dimension(Units:mm)

BU8877



DIP8

BU8877F



SOP16

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	V _{CC}	7	V
Power dissipation	DIP8	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	-	k	Input frequency: 100Hz~2000Hz	
Call progress tone response time	t _{RES}	28	-	56	ms		
Call pogram 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

