■ ICs for OA Applications

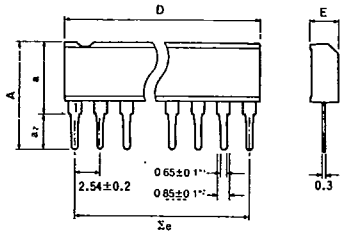
• Phones

☆ Under Development

	Type	Function	Package: Configuration	Package: No. of pins	Features	Reference Catalog
	BU8302A	Tone/pulse dialer	DIP	24	Contains both tone and puse dialers on a single chip to enable compact telephone set design, up to 17 digits of redialing capacity. Redial memory can be backed up from the line. Pause input capability. For U.S., Canada, and other markets.	—
	BU8304/BU8304F	Tone/pulse dialer	DIP/MF	24/28	Contains both tone and puse dialers on a single chip to enable compact telephone set design; up to 17 digits of redial capability; redial memory can be backed up from the line; pause input capability; domestic model	No.3121
	BU8307BS/BU8307BF	Tone/pulse dialer	DIPS/MF	22/24	Compatible with standards in Japan, U.S.A., Canada, U.K., Korea, Taiwan, and Australia	No.3094
New	☆ **BU8308K/☆BU8308S**	Pulse/Tone dialer CPU interface built-in	QFP/ DIPS	32	4×4; internal key encoder allows CPU control by a serial signal Compatible with standards in Japan, U.S.A. Canada, U.K, Korea, Taiwan, and Australia	—
	BU8320A/BU8320AF	Tone/pulse repertory dialer	DIP/MF	28	Break rate 66.7% for Japan	No.3121
	BU8321/BU8321F	Tone/pulse repertory dialer	DIP/MF	28	Memory protecting function for Japan. U.S.A.	
	BU8322/BU8322F	Tone/pulse repertory dialer	DIP/MF	28	Break rate 60% for U.S.A.	
	BU8323/BU8323F	Tone/pulse repertory dialer	DIP/MF	28	Off-hook memory storage for Japan, U.S.A.	
					Tone and pulse dialers built into one chip; internal 16-digit, 20-station repertory memory on a low standby current of 0.1μA typ. for one-touch dialing; Wide operating voltage range of 1.5 to 5.5V.	
New	**BU8874**	DTMF receiver	DIP	8	Serial data outputs implement three serial interface lines to the host processor; 8-pin DIP; on-chip AGC achieves 45-dB dynamic range.	—
	BA6562/BA6562F	Speech network	DIP/MF	16/18	Built-in amplifier for transmitter and receiver and voltage regulator. Detects line current and controls gains of amplifier for transmitter and receiver.	—
	BA6566/BA6566F	Speech network	DIP/MF	18	Operating current range: 5 to 125mA.	No.3121
	BA6566FP	Speech network	MFP	24	Suitable for surface mounting--No need for external transistors for power consumption.	No.3121
	BA6567K	Speech network	QFP	44	On-hook receiver capability. Operating current range: 5 to 135mA.	No.3121
	BA6569FP/BA6569S	Speech network	MFP/ DIPS	24/22	Ideal for cordless telephones; Independent receiver preamp and power amp.	No. 3097
	☆ **BA8211N**	Speech network	SIP	10	Few external parts, due to excellent branch characteristics. Receiver may be either piezoelectric or dynamic.	No.3095
	BA8215/BA8215L	Speech network	DIP/LF	14/16	Few external parts, due to excellent branch characteristics. Receiver may be either piezoelectric or dynamic.	No.3096
New	☆ **BA8216**	Speech network	DIP	14	Excellent branch characteristic; few external parts required; receiver selectable from piezoelectric and dynamic types; supply voltage 4.15V type. (at line current = 20mA); reception noise further reduced from the BA8215.	—
	BA6571A/BA6571AF	Speakerphone	DIP/MF	28	Implements major speakerphone circuitry on a single chip.	No.3121
	BA6564A/BA6564AF	Tone ringer	DIP/MF	8	Internal power supply with hysterisis, double ringing tone capability (650Hz or 810Hz), low power consumption (3.3mA typ. unloaded).	—
	BA6565A/BA6565AF	Tone ringer	DIP/MF	8	Internal power supply with hystersis, adjustable ring start current, double ringing tone capability (650Hz or 810Hz), low power consumption (3.3mA typ. unloaded).	—
	BA8205/BA8205F	Tone ringer	DIP/MF	8	High output sound pressure. Absolute maximum rating 40V	No.3121
	BA1604/BA1604F	Tone decoder	DIP/MF	8	Uses PLL., Built-in output power transistor.	No.3121
	BA1610/BA1610F	FSK linear modem	DIP/MF	20	For transmitting control data on pushbutton telephones. Wide operating voltage range (5.5~14V).	No.3121
	BU2902F	Telephone hold tone generator	MF	18	Built-in hold tone control logic; contains a single unison melody; Daydream, Day River, 3V power supply	—
	BU2906F	Telephone hold tone generator	MF	18	Built-in hold tone control logic; contains a single unison melody; My Heart is a Violin 3V power supply	No.3121
	BU2907F	Telephone hold tone generator	MF	18	Built-in hold tone control logic; contains a single unison melody; There's No Place Like Home, Green Sleeves 3V power supply	No.3121
	BU2908F	Telephone hold tone generator	MF	18	Built-in hold tone control logic; contains a single unison melody; (Hey Jude) (Yesterday) 3V power supply	No.3121
	BU2912	Hold tone generator for answering machines	DIP	18	A single chord melody; 6 kinds of chime tones; bell sound; 5V power supply; level input	—

Dimensions (Unless otherwise specified, dimensions are shown in Typ. values.)

SIP

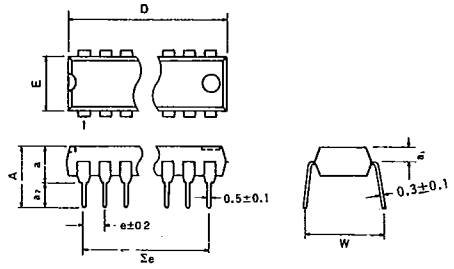


• SIP Dimensions (Unit: mm)

Package	A	a	a_2	D	Σe	E
SIP 5	9.7	6.2	3.5	12.0	10.16	2.4
SIP 7	9.7	6.2	3.5	17.0	15.24	2.8
SIP 8	10.5	7.0	3.5	19.5	17.78	2.8
SIP 9	10.5	7.0	3.5	22.0	20.32	2.8
SIP 10	10.5	7.0	3.5	25.2	22.86	2.8

*1 SIP 10pin: 0.6 *2 SIP 10pin: 0.8

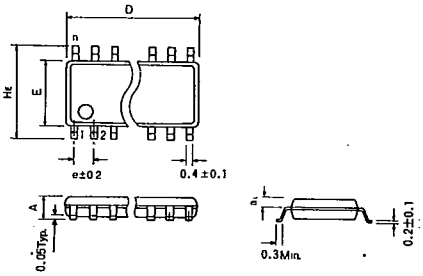
DIP/DIPS



• DIP Dimensions (Unit: mm)

Package	A	a	a_1	a_2	D	e	Σe	E	W
DIP 8	6.8	3.6	1.1	3.2	9.3	2.54	7.62	6.5	8.8
DIP 14	6.94	3.65	1.65	3.29	19.4	2.54	15.24	6.5	8.8
DIP 16	6.94	3.65	1.65	3.29	19.4	2.54	17.78	6.5	8.8
DIP 18	6.94	3.65	1.65	3.29	22.9	2.54	20.32	6.5	8.8
DIP 20	7.09	3.65	1.65	3.44	26.3	2.54	22.86	6.5	8.8
DIP 22	7.09	3.65	1.65	3.44	26.3	2.54	25.40	6.5	8.8
DIP 24	7.51	4.22	1.8	3.29	32.0	2.54	27.94	13.8	16.5
DIP 28	7.51	4.22	1.8	3.29	37.1	2.54	33.02	13.8	16.5
DIP 40	7.7	4.5	1.8	3.2	52.3	2.54	48.26	13.8	16.5
DIPS 18	7.35	3.65	1.65	3.7	19.4	1.778	14.224	6.5	8.8
DIPS 22	7.35	3.65	1.65	3.7	19.4	1.778	17.78	6.5	8.8
DIPS 24	7.4	4.0	1.7	3.4	22.8	1.778	19.558	6.5	8.8
DIPS 30	7.9	4.7	1.7	3.2	28.0	1.778	24.892	8.4	11.4
DIPS 32	7.9	4.7	1.7	3.2	28.0	1.778	26.67	8.4	11.4
DIPS 42	7.7	4.5	1.8	3.2	37.1	1.778	35.56	13.8	16.5

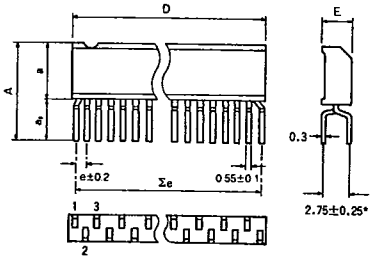
MF/MFS/MFP



• MF Dimensions (Unit: mm)

Package	A	a_1	D	H_E	e	E
MF 8	1.5	0.65	5.0	6.2	1.27	4.4
MF 14	1.5	0.65	8.7	6.2	1.27	4.4
MF 16	1.5	0.65	10.0	6.2	1.27	4.4
MF 18	1.8	0.8	11.2	7.8	1.27	5.4
MF 20	1.8	0.8	12.5	7.8	1.27	5.4
MF 22	1.8	0.8	13.7	7.8	1.27	5.4
MF 24	1.8	0.8	15.0	7.8	1.27	5.4
MF 28	2.2	1.0	18.5	9.9	1.27	7.5
MFS 16	1.5	0.65	6.6	6.2	0.8	4.4
MFS 20	1.8	0.8	8.7	7.8	0.8	5.4
MFS 24	1.8	0.8	10.0	7.8	0.8	5.4
MFP 24	1.9	0.8	13.7	7.8	0.8	5.4
MFP 28	2.2	0.95	18.5	9.9	0.8	7.5

LF/LFS



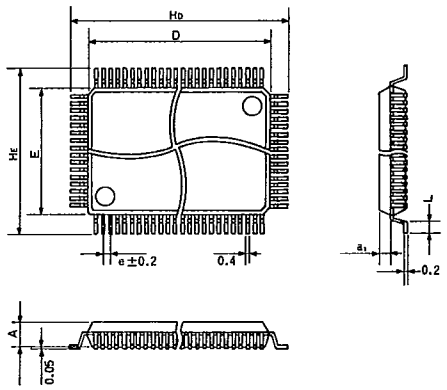
• LF Dimensions (Unit: mm)

Package	A	a	a_2	D	Σe	e	E
LF 9	9.8	5.0	4.8	12.0	10.16	1.27	2.4
LF 12	9.8	5.0	4.8	17.0	13.97	1.27	2.8
LF 16	9.9	5.8	4.1	19.5	19.05	1.27	2.8
LF 18	9.9	5.8	4.1	22.0	21.59	1.27	2.8
LFS 24	10.0	5.8	4.2	22.0	20.447	0.889	2.8

★LFS 24: 2.54±0.25

T-90-20

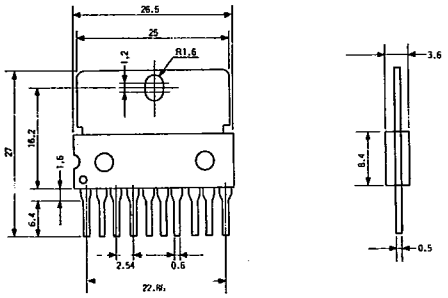
QFP/QFPS



• QFP Dimensions (Unit: mm)

Package	A	a_1	D	e	E	H_E	H_D	L
QFP 32	1.45	0.65	7.0	0.8	7.0	9.0	9.0	0.4
QFP 44	2.15	1.0	10.0	0.8	10.0	14.0	14.0	1.2
QFP 64	2.15	1.0	20.0	1.0	14.0	18.0	24.0	1.2
QFP 80	2.7	1.275	20.0	0.8	14.0	18.0	24.0	1.2
QFPS 56	2.15	1.0	10.0	0.65	10.0	12.4	12.4	0.5
QFPS 80	2.7	1.275	14.0	0.65	14.0	16.4	16.4	0.5
QFPS 100	2.7	1.275	20.0	0.65	14.0	18.0	24.0	1.2

SIP-P 10 pin



SIP-P 12 pin