μCOM-44 SINGLE CHIP MICROCOMPUTER

DESCRIPTION

The μPD547L is a low power version of the μCOM-44. It is a modified PMOS device requiring a −8 volt power supply with a reduced supply current specification. As a μCOM-44, it includes 1000 x 8 ROM, 64 x 4 RAM and 35 I/O lines in a 42 pin plastic dual-in-line package.

ABSOLUTE MAXIMUM RATINGS*

Operating Temperature . . . . . −10°C to +70°C
Storage Temperature . . . . . −40°C to +125°C
Supply Voltage . . . . . −15 to +0.3 Volts
Input Voltages. . . . . −15 to +0.3 Volts
Output Voltages . . . . . −15 to +0.3 Volts
Output Current . . . . . −4 mA

COMMENT: Stress above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

*T_a = 25°C

DC/AC CHARACTERISTICS

T_a = −10°C to +70°C, V_{GG} = −8V ± 10%

PARAMETER	SYMBOL	LIMITS MIN	TYP	MAX	UNIT	TEST CONDITIONS
Input High Voltage	V_{IH}	0		−1.6	V	Ports A to D, $\overline{INT}$, RES
Input Low Voltage	V_{IL}	−3.8		V_{GG}	V	Ports A to D, $\overline{INT}$, RES
Input Leakage Current High	I_{LIH}			+10	μA	Ports A and B, $\overline{INT}$, RES, TEST V_I = −1V
Input Leakage Current Low	I_{LIL}			−10	μA	Ports A and B, $\overline{INT}$, RES, TEST V_I = −9V
I/O Leakage Current High	I_{IOH}			+10	μA	Ports C and D V_I = −1V
I/O Leakage Current Low	I_{IOL}			−10	μA	Ports C and D V_I = −9V
Output Voltage	V_{OH1}			−1.0	V	Ports C to I I_{OH} = −0.7 mA
	V_{OH2}			−2.3	V	Ports C to I I_{OH} = −2.6 mA
Output Leakage Current	I_{OL}			−10	μA	Ports C to I V_O = −9V
Supply Current	I_{GG}		−15	−25	mA	
Oscillator Frequency	F	100		180	KHz	

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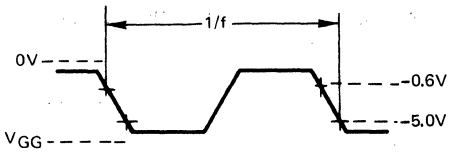
μPD547L

$T_a = 25°C$; f = 1 MHz

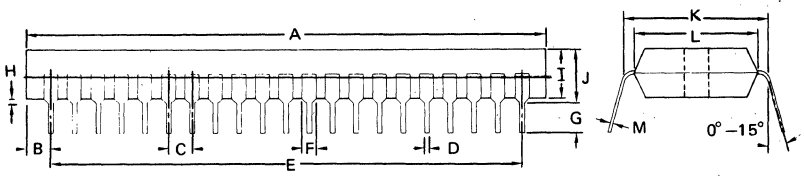
CAPACITANCE

PARAMETER	SYMBOL	LIMITS MIN	LIMITS TYP	LIMITS MAX	UNIT	TEST CONDITIONS
Input Capacitance	C_I			15	pf	f = 1 MHz
Output Capacitance	C_O			15	pf	
Input/Output Capacitance	C_{IO}			15	pf	

CLOCK WAVEFORM



PACKAGE OUTLINE μPD547LC



ITEM	MILLIMETERS	INCHES
A	56.0 MAX	2.2 MAX
B	2.6 MAX	0.1 MAX
C	2.54	0.1
D	0.5 ± 0.1	0.02 ± 0.004
E	50.8	2.0
F	1.5	0.059
G	3.2 MIN	0.126 MIN
H	0.5 MIN	0.02 MIN
I	5.22 MAX	0.20 MAX
J	5.72 MAX	0.22 MAX
K	15.24	0.6
L	13.2	0.52
M	0.3 ± 0.1	0.01 ± 0.004