

μCOM-43 SINGLE CHIP MICROCOMPUTER

DESCRIPTION The μPD546 is the standard version of the μCOM-43. This PMOS, -10 volt part is designed to have TTL-level compatible inputs and is easily interfaced to external static RAM. As a μCOM-43, it includes 2000 x 8 ROM, 96 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} = -10V ± 10%

PARAMETER	SYMBOL	LIMITS			UNIT	TEST CONDITIONS
		MIN	TYP	MAX		
Input High Voltage	V _{IH}	0		-2.0	V	Ports A to D, INT, RES
Input Low Voltage	V _{IL}	-4.3		V _{GG}	V	Ports A to D, INT, RES
Input Leakage Current High	I _{LIH}			+10	μA	Ports A and B, INT, RES, TEST V _I = -1V
Input Leakage Current Low	I _{LIL}			-10	μA	Ports A and B, INT, RES, TEST V _I = -11V
I/O Leakage Current High	I _{I0H}			+30	μA	Ports C and D V _I = -1V
I/O Leakage Current Low	I _{I0L}			-30	μA	Ports C and D V _I = -11V
Output Voltage	V _{OH1}			-1.0	V	Ports C to I I _{OH} = -1.0 mA
	V _{OH2}			-2.3	V	Ports C to I I _{OH} = -3.3 mA
Output Leakage Current	I _{OL}			-10	μA	Ports C to I V _O = -11V
Supply Current	I _{GG}		-30	-50	mA	
Oscillator Frequency	F	150		440	KHz	

6

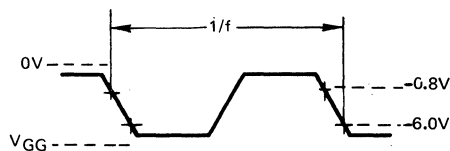
μPD546

T_a = 25°C, f = 1 MHz

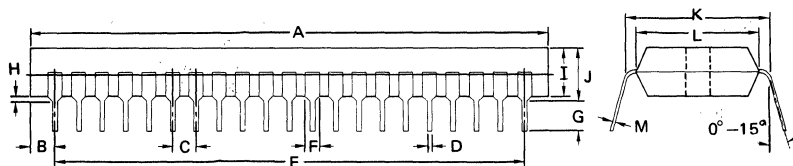
CAPACITANCE

PARAMETER	SYMBOL	LIMITS			UNIT	TEST CONDITIONS
		MIN	TYP	MAX		
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 μPD546C



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