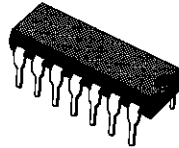


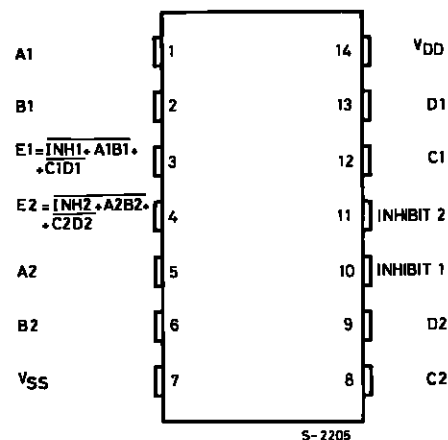


DUAL 2-WIDE 2-INPUT AND-OR-INVERTER GATE

- MEDIUM-SPEED OPERATION – $t_{PHL} = 90\text{ns}$;
 $t_{PLH} = 125\text{ns}$ (TYP.) AT 10V
- INDIVIDUAL INHIBIT CONTROLS
- STANDARDIZED SYMMETRICAL OUTPUT CHARACTERISTICS
- QUIESCENT CURRENT SPECIFIED TO 20V FOR HCC DEVICE
- 5V, 10V, AND 15V PARAMETRIC RATINGS
- INPUT CURRENT OF 100nA AT 18V AND 25°C FOR HCC DEVICE
- 100% TESTED FOR QUIESCENT CURRENT
- MEETS ALL REQUIREMENTS OF JEDEC TENTATIVE STANDARD N°. 13A, "STANDARD SPECIFICATIONS FOR DESCRIPTION OF "B" SERIES CMOS DEVICES"



PIN CONNECTIONS

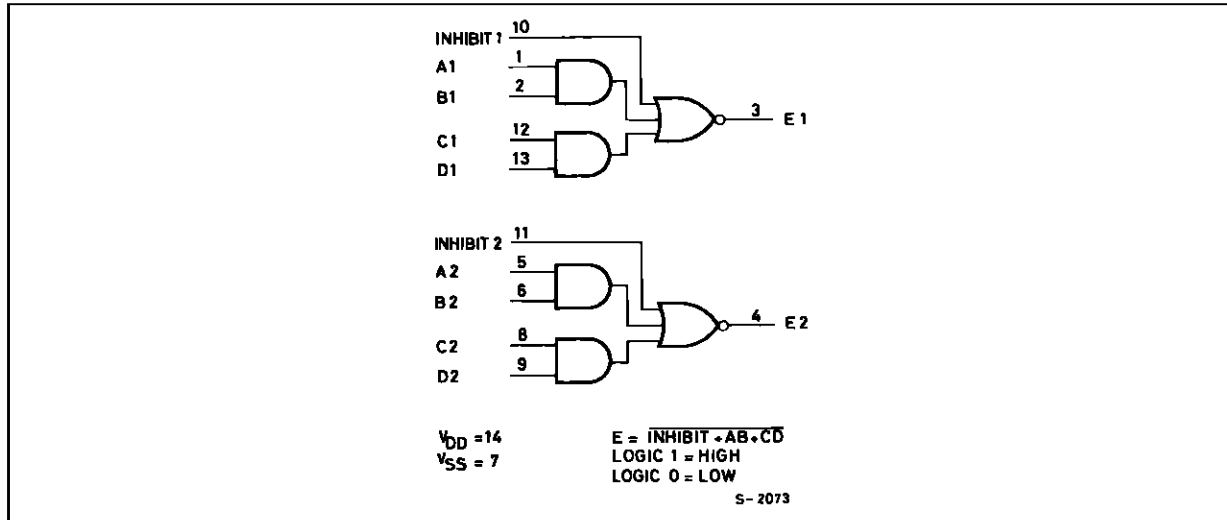


DESCRIPTION

The **CC4085** (extended temperature range) and **CC4085** (intermediate temperature range) are monolithic integrated circuit, available in 14-lead dual in-line plastic or ceramic package and plastic micropackage.

The **CC4085** contains a pair of AND-OR-INVERT gates, each consisting of two 2-input AND gates driving a 3-input NOR gate. Individual inhibit controls are provided for both A-O-I gates.

LOGIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{DD}^*	Supply Voltage :	- 0.5 to + 20	V
V_i	Input Voltage	- 0.5 to $V_{DD} + 0.5$	V
I_i	DC Input Current (any one input)	± 10	mA
P_{tot}	Total Power Dissipation (per package)	200	mW
	Dissipation per Output Transistor for $T_{op} =$ Full Package-temperature Range	100	mW
T_{op}	Operating Temperature :	- 55 to + 125	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	- 65 to + 150	$^{\circ}\text{C}$

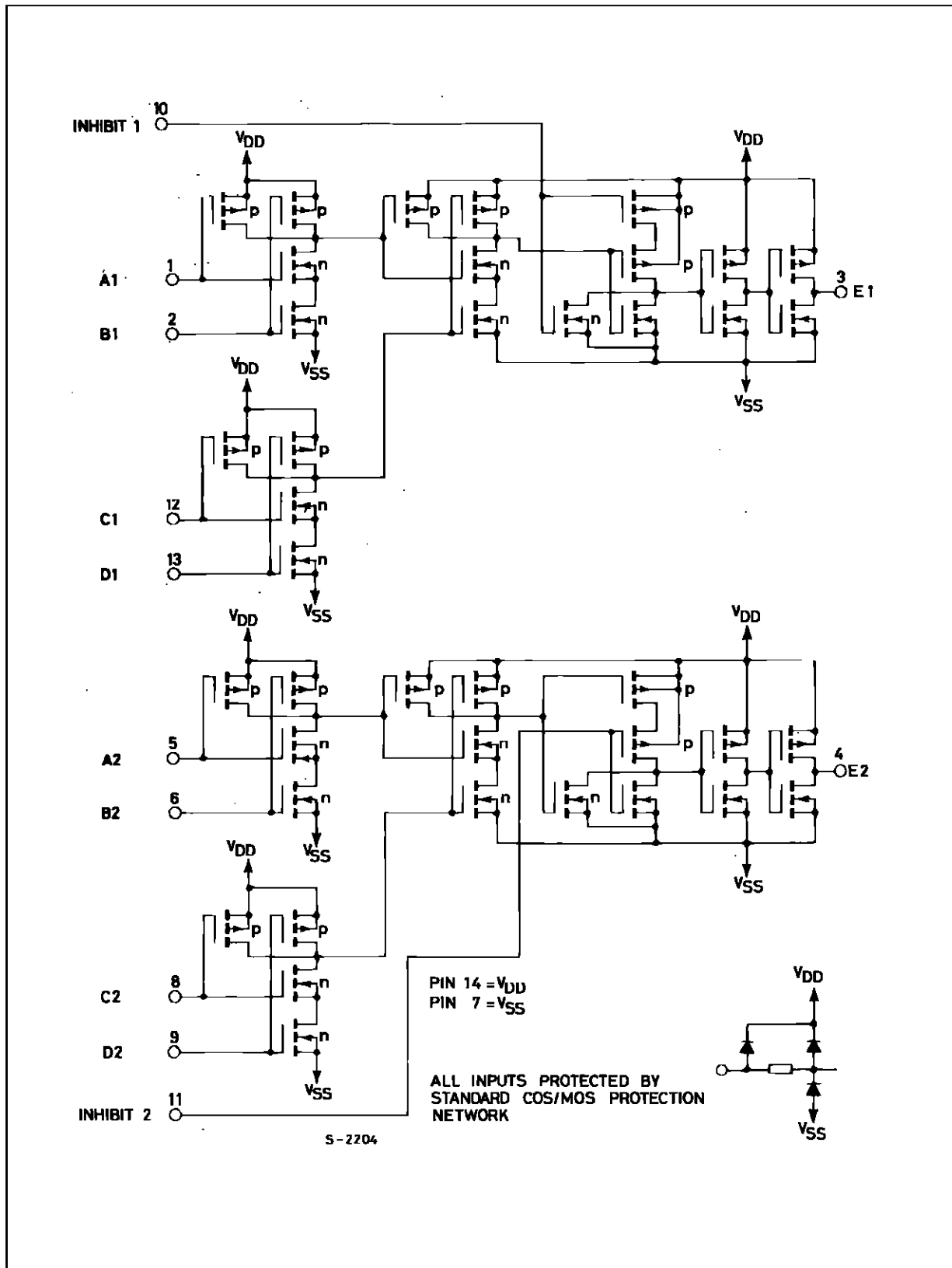
Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at those or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure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

* All voltage values are referred to V_{SS} pin voltage.

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Value	Unit
V_{DD}	Supply Voltage :	3 to 18	V
V_i	Input Voltage	0 to V_{DD}	V
T_{op}	Operating Temperature :	- 55 to + 125	$^{\circ}\text{C}$

SCHMATIC DIAGRAM



STATIC ELECTRICAL CHARACTERISTICS (over recommended operating conditions)

Symbol	Parameter		Test Conditions				Value						Unit	
			V _I (V)	V _O (V)	I _O (μ A)	V _{DD} (V)	T _{Low} *		25°C			T _{High} *		
							Min.	Max.	Min.	Typ.	Max.	Min.		Max.
I _L	Quiescent Current		0/ 5			5		1		0.02	1		30	μ A
			0/10			10		2		0.02	2		60	
			0/15			15		4		0.02	4		120	
			0/18			18		20		0.04	20		600	
V _{OH}	Output High Voltage		0/ 5		< 1	5	4.95		4.95			4.95		V
			0/10		< 1	10	9.95		9.95			9.95		
			0/15		< 1	15	14.95		14.95			14.95		
V _{OL}	Output Low Voltage		5/0		< 1	5		0.05			0.05		0.05	V
			10/0		< 1	10		0.05			0.05		0.05	
			15/0		< 1	15		0.05			0.05		0.05	
V _{IH}	Input High Voltage			0.5/4.5	< 1	5	3.5		3.5			3.5		V
				1/9	< 1	10	7		7			7		
				1.5/13.5	< 1	15	11		11			11		
V _{IL}	Input Low Voltage			4.5/0.5	< 1	5		1.5			1.5		1.5	V
				9/1	< 1	10		3			3		3	
				13.5/1.5	< 1	15		4			4		4	
I _{OH}	Output Drive Current		0/ 5	2.5		5	- 2		- 1.6	- 3.2		- 1.15		mA
			0/ 5	4.6		5	- 0.64		- 0.51	- 1		- 0.36		
			0/10	9.5		10	- 1.6		- 1.3	- 2.6		- 0.9		
			0/15	13.5		15	- 4.2		- 3.4	- 6.8		- 2.4		
I _{OL}	Output Sink Current		0/ 5	0.4		5	0.64		0.51	1		0.36		mA
			0/10	0.5		10	1.6		1.3	2.6		0.9		
			0/15	1.5		15	4.2		3.4	6.8		2.4		
I _{IH} , I _{IL}	Input Leakage Current		0/18		Any Input	18		\pm 0.1		\pm 10 ⁻⁵	\pm 0.1		\pm 1	μ A
C _I	Input Capacitance				Any Input					5	7.5			pF