TECHNICAL DATA
DATA SHEET NUMBER 583, REV. -

QUADRUPLE HALF-H DRIVER

FEATURES:
- 600 mA Output Current Capability, Per Driver
- Pulsed Current 1.2 A Per Driver
- Output Clamp Diodes for Inductive Transient Suppression
- Wide Supply Voltage Range; 4.5V to 36V
- Functional Replacement for SGS L293D

MAXIMUM RATINGS ALL RATINGS ARE OVER A FREE-AIR TEMPERATURE RANGE, UNLESS OTHERWISE SPECIFIED.

RATING	MAX.	UNITS
Logic Supply Voltage Range, V_{CC1} (see Note 1)	36	V
Output Supply Voltage Range, V_{CC2}	36	V
Input Voltage Range, V_I	7.0	V
Output Voltage Range, V_O	-3.0 to V_{CC2} +3.0	V
Peak Output Current (non-repetitive, t ≤ 100 µs	± 1.2	A
Continuous Output Current, I_O	± 600	mA
Continuous Total Dissipation at (or below) 25° C Free Air Temperature (2, 3)	2075	mW
Continuous Total Dissipation at 80° C Case Temperature (3)	5000	mW
Operating Case or Virtual Junction Temperature Range, T_J	-40 to +150	°C
Storage Temperature Range, T_{stg}	-65 to +150	°C
Lead Temperature 1.6 mm (1/16 inch) From Case for 10 Seconds	260	°C

Notes: 1- All voltage values are with respect to the network ground terminal.
2- For operation above 25°C free air temperature, derate lineraly at the rate of 16.6Mw/°C.
3- For operation above 25°C case temperature, derate lineraly at the rate of 71.4mW°/C. Due to variations in individual device electrical characteristics and thermal resistance, the built in thermal overload protection may be activated at power levels slightly above or below the rated dissipation.

RECOMMENDED OPERATING CONDITIONS

		MIN.	MAX.	UNIT
Logic Supply Voltage, V_{CC1}		4.5	7.0	V
Output Supply Voltage, V_{CC2}		V_{CC1}	36	V
High Level Input Voltage, V_{IH}	$V_{CC1} \leq 7.0V$	2.3	V_{CC1}	V
	$V_{CC1} \geq 7.0V$	2.3	7.0	
Low Level Input Voltage, V_{IL}		-0.3*	1.5	V
Operating Free Air Temperature, T_A		0	70	°C

*The algebraic conversion, in which the least positive (most negative) value is designated minimum, is used in this data sheet for logic voltage levels.

ELECTRICAL CHARACTRISTICS V_{CC1} = 5V, V_{CC2} =24V, T_A = 25°C

CHARACTRISTIC		CONDITIONS	MIN.	TYP.	MAX.	UNITS
High level Output Voltage (V_{OH})		I_{OH} = -0.6A	V_{CC2}-1.8	V_{CC2}-1.4	-	V
Low level Output Voltage (V_{OL})		I_{OL} = -0.6A	-	1.2	1.8	V
High level Output Clamp Voltage (V_{OKH})		I_{OK} = -0.6A	-	V_{CC2}+1.3	-	V
Low level Output Clamp Voltage (V_{OKL})		I_{OK} = -0.6A	-	1.3	-	V
High Level Input Current (I_{IH})	A	V_I = 7.0V	-	0.2	100	μA
	EN			0.2	±10	
Low Level Input Current (I_{II})	A	V_I = 0V	-	-3	-10	μA
	EN			-2	-100	
Logic Supply Current (I_{CC1})		All outputs @ High Level		13	22	mA
	I_O =0A	All outputs @ Low Level	-	35	60	
		All outputs @ High Imped.		8.0	24	
Output Supply Current (I_{CC2})		All outputs @ High Level		14	24	mA
	I_O =0A	All outputs @ Low Level	-	2.0	6.0	
		All outputs @ High Imped.		2.0	4.0	

SWITCHING CHARACTERISTICS V_{CC1} =5V, V_{CC2} = 24V, T_A =25°C

CHARACTRISTIC	CONDITION	MIN.	TYP.	MAX.	UNIT
Propagation Delay Time, L-H Level Output from. A Input (t_{PLH})	C_L = 30 pF	-	800	-	ns
Propagation Delay Time, H-L Level Output from. A Input (t_{PHL})		-	400	-	ns
Transition Time, L-H Level Output (t_{TLH})		-	300	-	ns
Transition Time, H-L Level Output t_{THL})		-	300	-	ns

TECHNICAL DATA

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