查询KIC7SZ00FU供应商 捷多邦，专业PCB打样工厂，24小时加急出货

KEC SEMICONDUCTOR
TECHNICAL DATA

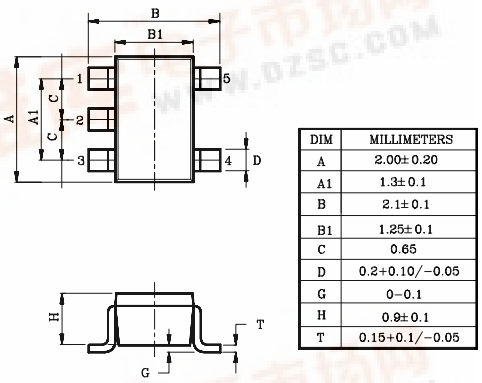
KIC7SZ00FU

SILICON MONOLITHIC CMOS
DIGITAL INTEGRATED CIRCUIT

2 INPUT NAND GATE

FEATURES

- High Output Drive : ±24mA (Typ.) @V_{CC}=3V
- Super High Speed Operation : t_{PD}=2.4ns(Typ.) @V_{CC}=5V, 50pF
- Operation Voltage Range : $V_{CC(opr)}$=1.8~5.5V.
- Supply Voltage Data Retention : V_{CC}=1.5~5.5V.
- 5V Tolerant Function



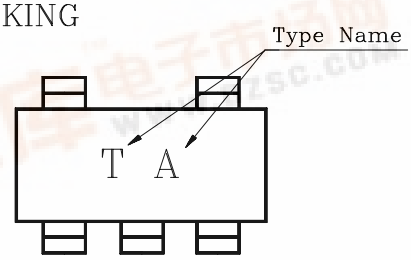
DIM	MILLIMETERS
A	2.00±0.20
A1	1.3±0.1
B	2.1±0.1
B1	1.25±0.1
C	0.65
D	0.2+0.10/−0.05
G	0−0.1
H	0.9±0.1
T	0.15+0.1/−0.05

USV

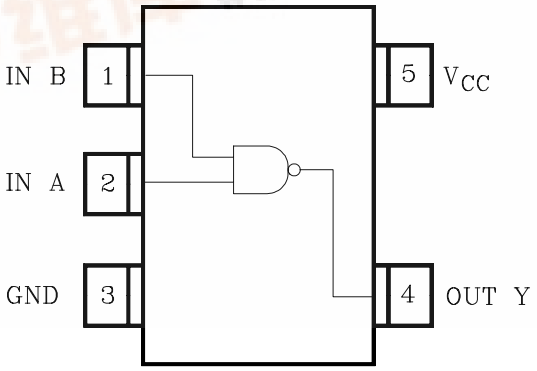
MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage Range	V_{CC}	-0.5~6	V
DC Input Voltage	V_{IN}	-0.5~6	V
DC Output Voltage	V_{OUT}	-0.5~6	V
Input Diode Current	I_{IK}	±20	mA
Output Diode Current	I_{OK}	±20	mA
DC Output Current	I_{OUT}	±50	mA
DC V_{CC}/Ground Current	I_{CC}	±50	mA
Power Dissipation	P_D	200	mW
Storage Temperature	T_{stg}	-65~150	℃
Lead Temperature (10s)	T_L	260	℃

MARKING



PIN CONNECTION(TOP VIEW)



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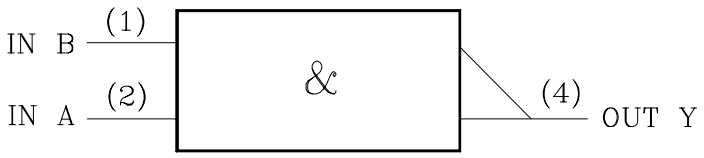
LOGIC DIAGRAM



DC ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION		V_{CC} (V)	Ta=25℃ MIN.	Ta=25℃ TYP.	Ta=25℃ MAX.	Ta=-40～85℃ MIN.	Ta=-40～85℃ MAX.	UNIT
High-Level Input Voltage	V_{IH}	-		1.8	0.88 ×V_{CC}	-	-	0.88 ×V_{CC}	-	V
				2.3 ～ 5.5	0.75 ×V_{CC}	-	-	0.75 ×V_{CC}	-	
Low-Level Input Voltage	V_{IL}	-		1.8	-	-	0.12 ×V_{CC}	-	0.12 ×V_{CC}	V
				2.3 ～ 5.5	-	-	0.25 ×V_{CC}	-	0.25 ×V_{CC}	
High-Level Output Voltage	V_{OH}	V_{IN}=V_{IL}	I_{OH}=-100μA	1.8	1.7	1.8	-	1.7	-	V
				2.3	2.2	2.3	-	2.2	-	
				3.0	2.9	3.0	-	2.9	-	
				4.5	4.4	4.5	-	4.4	-	
			I_{OH}=-8mA	2.3	1.9	2.15	-	1.9	-	
			I_{OH}=-16mA	3.0	2.4	2.8	-	2.4	-	
			I_{OH}=-24mA	3.0	2.3	2.68	-	2.3	-	
			I_{OH}=-32mA	4.5	3.8	4.2	-	3.8	-	
Low-Level Output Voltage	V_{OL}	V_{IN}=V_{IH}	I_{OL}=100μA	1.8	-	0	0.1	-	0.1	V
				2.3	-	0	0.1	-	0.1	
				3.0	-	0	0.1	-	0.1	
				4.5	-	0	0.1	-	0.1	
			I_{OL}=8mA	2.3	-	0.1	0.3	-	0.3	
			I_{OL}=16mA	3.0	-	0.15	0.4	-	0.4	
			I_{OL}=24mA	3.0	-	0.22	0.55	-	0.55	
			I_{OL}=32mA	4.5	-	0.22	0.55	-	0.55	
Input Leakage Current	I_{IN}	V_{IN}=5.5V or GND		0 ～ 5.5	-	-	±1	-	±10	μA
Power Off Leakage Current	I_{OFF}	V_{IN} or V_{OUT}=5.5V		0.0	-	-	1	-	10	
Quiescent Supply Current	I_{CC}	V_{IN}=V_{CC} or GND		5.5	-	-	2	-	20	

AC ELECTRICAL CHARACTERISTICS (Input t_r=t_f=3ns)

CHARACTERISTIC	SYMBOL	TEST CONDITION		Ta=25℃			Ta=-40～85℃		UNIT
			V_{CC} (V)	MIN.	TYP.	MAX.	MIN.	MAX.	
Propagation Delay Time	t_{PLH} t_{PHL}	C_L=15pF, R_L=1MΩ	1.8	2.0	4.5	9.5	2.0	10.0	ns
			2.5±0.2	0.8	3.0	6.5	0.8	7.0	
			3.3±0.3	0.5	2.4	4.5	0.5	4.7	
			5.0±0.5	0.5	2.0	3.9	0.5	4.1	
		C_L=50pF, R_L=500Ω	3.3±0.3	1.5	2.9	5.0	1.5	5.2	
			5.0±0.5	0.8	2.4	4.3	0.8	4.5	
Input Capacitance	C_{IN}	-	0～5.5	-	4	-	-	-	pF
Power Dissipation Capacitance	C_{PD}	(Note1)	3.3	-	24	-	-	-	
			5.5	-	30	-	-	-	

Note 1 : C_{PD} defined as the value of internal equivalent capacitance of IC which is calculated from the operating current consumption without load (refer to Test Circuit.)
Average operating current can be obtained by the equation hereunder.
$I_{CC(opr)}=C_{PD}\cdot V_{CC}\cdot f_{IN}+I_{CC}$