



Shantou Huashan Electronic Devices Co.,Ltd.

NPN DIGITAL TRANSISTOR

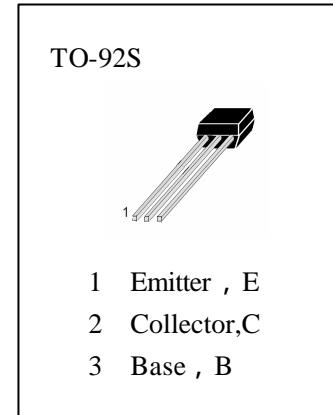
HC124E

APPLICATIONS

Switching Circuit , Interface Circuit.

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ C$)

T_{stg} —— Storage Temperature.....	-55~150
T_j —— Junction Temperature.....	150
P_c —— Collector Dissipation.....	300mW
V_{CBO} —— Collector-Base Voltage.....	50V
V_{CEO} —— Collector-Emitter Voltage.....	50V
V_{EBO} —— Emitter-Base Voltage.....	10V
I_c —— Collector Current.....	100mA



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	50			V	$I_C=10 \mu A, I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	50			V	$I_C=0.1mA, I_B=0$
ICBO	Collector Cut-off Current			0.1	μA	$V_{CB}=40V, I_E=0$
ICEO	Collector Cut-off Current			0.5	μA	$V_{CE}=40V, I_B=0$
IEBO	Emitter Cut-off Current	70	113	150	μA	$V_{EB}=5V, I_C=0$
HFE	DC Current Gain	56				$V_{CE}=5V, I_C=5mA$
VCE(sat)	Collector- Emitter Saturation Voltage		0.1	0.3	V	$I_C=10mA, I_B=0.5mA$
VI (off)	Input Off Voltage	0.8	1.1	1.5	V	$V_{CE}=5V, I_C=0.1mA$
VI (on)	Input On Voltage	1.0	1.9	3.0	V	$V_{CE}=0.2V, I_C=5mA$
R1	Input Resistor	15	22	29	Kohm	
R2/R1	Resistance Ratio	0.9	1.0	1.1		
fr	Current Gain-Bandwidth Product		250		MHz	$V_{CE}=10V, I_C=5mA$
Cob	Output Capacitance		3.7		pF	$V_{CB}=10V, f=1MHz$