



Shantou Huashan Electronic Devices Co.,Ltd.

PNP DIGITAL TRANSISTOR

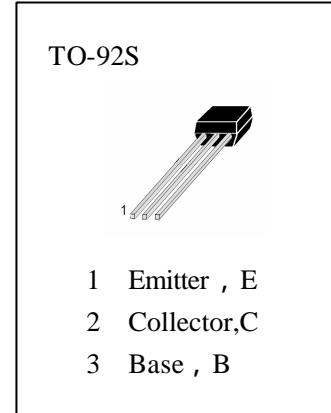
HA143X

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	-200	-340	-420	μA	$V_{EB}=-5V, I_C=0$
HFE	DC Current Gain	30				$V_{CE}=-5V, I_C=-10mA$
VCE(sat)	Collector- Emitter Saturation Voltage		-0.1	-0.3	V	$I_C=-10mA, I_B=-0.5mA$
VI (off)	Input Off Voltage	-0.3			V	$V_{CE}=-5V, I_C=-0.1mA$
VI (on)	Input On Voltage			-2.5	V	$V_{CE}=-0.3V, I_C=-20mA$
R1	Input Resistor	3.2	4.7	6.2	Kohm	
R1/R2	Resistance Ratio	0.42	0.47	0.52		
fr	Current Gain-Bandwidth Product		250		MHz	$V_{CE}=-10V, I_C=-5mA$