



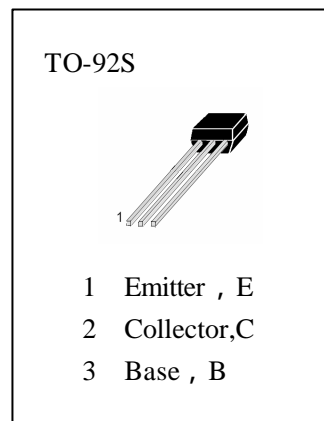
HC143X

APPLICATIONS

Switching Circuit , Interface Circuit.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

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.....	5V
I_C	Collector Current.....	100mA



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	50			V	$I_C=10\mu A, I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	50			V	$I_C=0.1mA, I_B=0$
I_{CBO}	Collector Cut-off Current			0.1	μA	$V_{CB}=40V, I_E=0$
I_{CEO}	Collector Cut-off Current			0.5	μA	$V_{CE}=40V, I_B=0$
I_{EBO}	Emitter Cut-off Current	200	340	420	μA	$V_{EB}=5V, I_C=0$
H_{FE}	DC Current Gain	30				$V_{CE}=5V, I_C=1mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage		0.1	0.3	V	$I_C=10mA, I_B=0.5mA$
$V_I(off)$	Input Off Voltage	0.3			V	$V_{CE}=5V, I_C=0.1mA$
$V_I(on)$	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	$V_{CE}=10V, I_C=5mA$