

MICRO

查询BCY70供应商

更多邦 专业PCB打样工厂 24小时加急出货

BCY70,1,2

PNP
SILICON
TRANSISTORS

TO-18



CBE

The BCY70, BCY71 and BCY72 are PNP silicon planar epitaxial transistors designed for general purpose amplifier and switching applications.

ABSOLUTE MAXIMUM RATINGS

	BCY70	BCY71	BCY72
Collector-Base Voltage	VCBO 50V	45V	25V
Collector-Emitter Voltage	VCEO 50V	45V	25V
Emitter-Base Voltage	VEBO	5V	
Collector Current	IC	200mA	
Total Power Dissipation	Ptot	350mW	
Operating Junction & Storage Temperature	Tj, Tstg	-65 to +200°C	

ELECTRICAL CHARACTERISTICS (TA=25°C)

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector Cutoff Current	BCY70	ICBO	10	nA	V _{CB} =40V I _E =0
			500	nA	V _{CB} =50V I _E =0
	BCY71		50	nA	V _{CB} =40V I _E =0
			500	nA	V _{CB} =45V I _E =0
	BCY72		50	nA	V _{CB} =20V I _E =0
			500	nA	V _{CB} =25V I _E =0
Collector Cutoff Current	ICEX		20	nA	V _{CE} =50V V _{EB} =3V
Emitter Cutoff Current	IEBO		500	nA	V _{EB} =5V I _C =0
Collector-Emitter Saturation Voltage	V _{CE(sat)}		0.25	V	I _C =10mA I _B =1mA
			0.5	V	I _C =50mA I _B =5mA*
Base-Emitter Saturation	V _{BE(sat)}	BCY70, BCY71	0.6	V	I _C =10mA I _B =1mA
			0.9	V	I _C =50mA I _B =5mA*
			1.2	V	I _C =50mA I _B =5mA*



ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

PARAMETER		SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS	
D.C. Current Gain	BCY70	HFE	40			$I_C=0.1\text{mA}$ $V_{CE}=1\text{V}$	
			45			$I_C=1\text{mA}$ $V_{CE}=1\text{V}$	
			50			$I_C=10\text{mA}$ $V_{CE}=1\text{V}$	
			15			$I_C=50\text{mA}$ $V_{CE}=1\text{V}^*$	
	BCY71			40			$I_C=0.01\text{mA}$ $V_{CE}=1\text{V}$
				80			$I_C=0.1\text{mA}$ $V_{CE}=1\text{V}$
				90			$I_C=1\text{mA}$ $V_{CE}=1\text{V}$
				100	600		$I_C=10\text{mA}$ $V_{CE}=1\text{V}$
	BCY72			40			$I_C=1\text{mA}$ $V_{CE}=1\text{V}$
				50			$I_C=10\text{mA}$ $V_{CE}=1\text{V}$
	Small Signal Current Gain	BCY71	h_{fe}	100	400		$I_C=1\text{mA}$ $V_{CE}=10\text{V}$ $f=1\text{KHz}$
	Current Gain Bandwidth Product	BCY71	f_T	15		MHz	$I_C=0.1\text{mA}$ $V_{CE}=10\text{V}$ $f=10.7\text{MHz}$
BCY70			250		MHz	$I_C=10\text{mA}$ $V_{CE}=20\text{V}$	
BCY71,BCY72			200		MHz	$f=100\text{MHz}$	
Output Capacitance		C_{ob}		6	pF	$V_{CB}=10\text{V}$ $I_E=0$ $f=1\text{MHz}$	
Input Capacitance		C_{ib}		8	pF	$V_{EB}=1\text{V}$ $I_C=0$ $f=1\text{MHz}$	
Noise Figure	BCY70,BCY72	NF		6	dB	$I_C=0.1\text{mA}$ $V_{CE}=5\text{V}$ $R_G=2\text{K}\Omega$ $f=10\text{Hz to }10\text{KHz}$	
	BCY71			2	dB		

* Pulse Test : Pulse Width = $300\mu\text{s}$, Duty Cycle = 1%.