

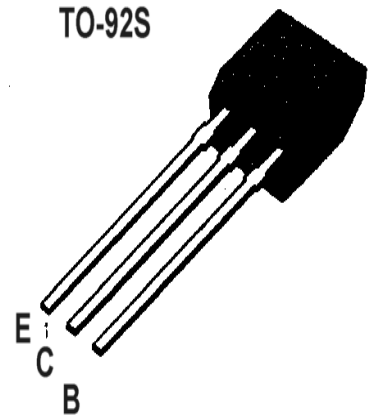
PNP Transistors

—NPN Silicon—

■■ APPLICATION: General Purpose Applications.

■■ MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	45	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	0.1	A
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C



■■ ELECTRICAL CHARACTERISTICS

(Ta=25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION		
Collector-Base Breakdown Voltage	BV_{CBO}	50			V	$I_C=0.1mA$	$I_E=0$	
Collector-Emitter Breakdown Voltage	BV_{CEO}	45			V	$I_C=1mA$	$I_B=0$	
Emitter-Base Breakdown Voltage	BV_{EBO}	5			V	$I_E=0.1mA$	$I_C=0$	
Collector Cut-off Current	I_{CBO}			0.1	uA	$V_{CB}=50V$	$I_E=0$	
Emitter Cut-off Current	I_{EBO}			0.1	uA	$V_{EB}=5V$	$I_C=0$	
Base-Emitter on Voltage	$V_{BE(on)}$			0.7	V	$V_{CE}=5V$	$I_C=2mA$	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1	V	$I_C=100mA$	$I_B=10mA$	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.3	V	$I_C=100mA$	$I_B=10mA$	
DC Current Gain	H_{FE}	60		1000	β	$V_{CE}=5V$	$I_C=1mA$	
Gain bandwidth product	f_T	150	270		MHz	$V_{CE}=5V$	$I_C=10mA$	
Common Base Output Capacitance	C_{ob}		2.2	3.5	pF	$V_{CB}=10V$	$I_E=0$	$f=1MHz$
Noise Figure	NF		3	5	dB	$V_{CE}=5V, I_C=0.2mA, f=1KHz, R_g=2K\Omega$		

■■ H_{FE} Classification And Marking

Print Mark	9014			
Classification	A	B	C	D
H_{FE}	60~150	100~300	200~600	400~1000