

PNP SILICON TRANSISTOR

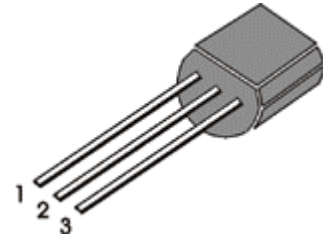
■ Description

- . General Purpose Application
- . Switching Transistor

■ Features

- h_{FE} Linearity.
- Complementary Pair with TIP9013

TO-92



1.Emitter 2.Base 3.Collector

■ ABSOLUTE MAXIMUM RATINGS

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Emitter Current	I_E	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

■ ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB}=-35\text{V}, I_E=0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-1\text{V}, I_C=-50\text{mA}$	96		246	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-10\text{mA}$		-0.1	0.25	V
Base-Emitter Voltage	V_{BE}	$I_C=-100\text{mA}, V_{CE}=-1\text{V}$		-0.8	-1	V
Transistor Frequency	f_T	$V_{CB}=-6\text{V}, I_C=-20\text{mA}, f=100\text{MHz}$	150			MHz
Collector Output Capacitance	C_{OB}	$V_{CB}=-6\text{V}, f=1\text{MHz}$		7		pF

h_{FE} CLASSIFICATION

Classification	F	G	H	I
h_{FE}	96 – 135	118 - 166	144 – 202	176 - 246