



TIP9013

NPN SILICON TRANSISTOR

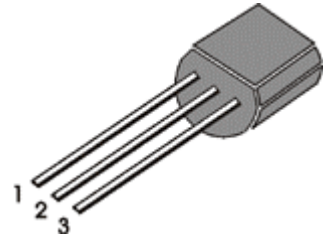
■ Description

- General Purpose Application
- Switching Transistor

■ Features

- Excellent h_{FE} Linearity.
- Complementary Pair with TIP9012

TO-92



1. Emitter 2. Base 3. Collector

■ ABSOLUTE MAXIMUM RATINGS

(T_A=25°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	°C
Storage Temperature	T _{STG}	-55 ~ 150	°C

■ ELECTRICAL CHARACTERISTICS

(T_A=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I _{CBO}	V _{CB} = 35V, I _E =0			0.1	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = 5V, I _C =0			0.1	μA
DC Current Gain	h _{FE}	V _{CE} =1V, I _C =50mA	96		246	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA		0.1	0.25	V
Base-Emitter Voltage	V _{BE}	I _C =100mA, V _{CE} =1V		0.8	1	V
Transistor Frequency	f _T	V _{CE} =6V, I _C =20mA, f=100MHz	140			MHz
Collector Output Capacitance	C _{OB}	V _{CB} =6V, I _E =0, f=1MHz		7		pF

h_{FE} CLASSIFICATION

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

[Previous](#)[return](#)[next](#)