NPN SILICON TRANSISTOR

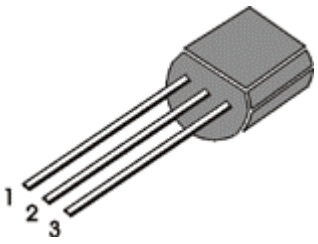
■ Description

- General Purpose Application
- Switching Transistor

■ Features

- Excellent h_{FE} Linearity :
  h_{FE}(Ic=0.1mA) / h_{FE}(Ic=2mA) = 0.95(Typ.)
- Low Noise : NF = 10dB(Max.) at f=1kHz
- Complementary Pair with TIP9015.

TO-92



1.Emitter 2.Base 3.Collector

■ ABSOLUTE MAXIMUM RATINGS

(T_A=25℃)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Emitter Current	I_E	-150	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55 ~ 150	℃

■ ELECTRICAL CHARACTERISTICS

(T_A=25℃)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	V_{CB}=50V, I_E=0			50	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=1mA	100		1000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA		0.1	0.25	V
Transistor Frequency	f_T	V_{CE}=10V, I_C=1mA, f=100MHz	60			MHz
Collector Output Capacitance	C_{OB}	V_{CB}=10V, I_E=0, f=1MHz		2	3.5	pF
Noise Figure	NF	V_{CB}=6V, I_C=0.1mA, R_S=10KΩ, f=1KHz,			10	dB

h_{FE} CLASSIFICATION

Classification	B	C	D
h_{FE}	100 - 300	200 – 600	400 - 1000