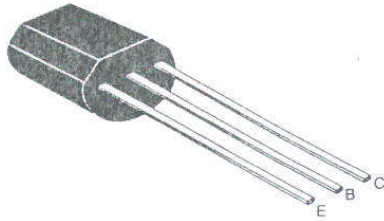


TRANSISTOR 三極管(SOUTH KOREA SEMICONDUCTOR)

SK9014

www.DataSheet4U.com



TO-92

PRE-AMPLIFIER, LOW LEVEL & LOW NOISE

- High total power dissipation. (PT=450mW)
- High h_{FE} and good linearity.
- Complementary to SK9015

CLASSIFICATION h_{FE}

Classification	A	B	C	D
h_{FE}	60-150	100-300	200-600	400-1000

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

Characteristic	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	100	mA

Characteristic	Symbol	Rating	Unit
Collector Dissipation	P_C	450	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

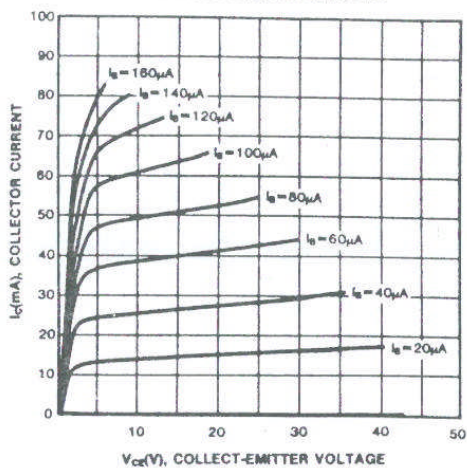
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CBO}	50			V	$I_C=100\mu\text{A}$, $I_E=0$
Collector-Emitter Breakdown Voltage	BV_{CEO}	45			V	$I_C=1\text{mA}$, $I_B=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	5			V	$I_E=100\mu\text{A}$, $I_C=0$
Collector Cutoff Current	I_{CBO}			50	nA	$V_{CB}=50\text{V}$, $I_E=0$
Emitter Cutoff Current	I_{EBO}			50	nA	$V_{EB}=5\text{V}$, $I_C=0$
DC Current Gain	h_{FE}	60	280	1000		$V_{CE}=5\text{V}$, $I_C=1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$		0.14	0.3	V	$I_C=100\text{mA}$, $I_B=5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE}(\text{sat})$		0.84	1.0	V	$I_C=100\text{mA}$, $I_B=5\text{mA}$
Base-Emitter On Voltage	$V_{BE}(\text{on})$	0.58	0.63	0.7	V	$V_{CE}=5\text{V}$, $I_C=2\text{mA}$
Output Capacitance	C_{ob}		2.2	3.5	pF	$V_{CB}=10\text{V}$, $I_E=0$, $f=1\text{MHz}$
Current Gain-Bandwidth Product	f_T	150	270		MHz	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$
Noise Figure	NF		0.9	10	dB	$V_{CE}=5\text{V}$, $I_C=0.2\text{mA}$ $f=1\text{KHz}$, $R_s=2\text{K}\Omega$

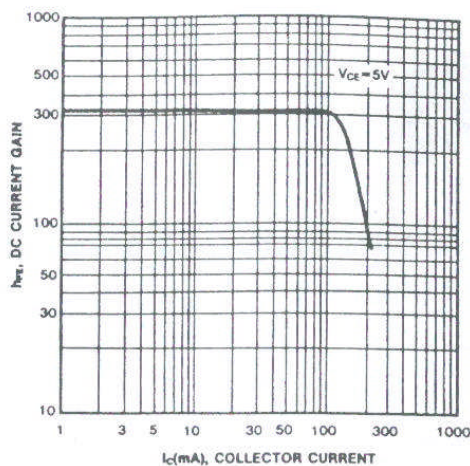
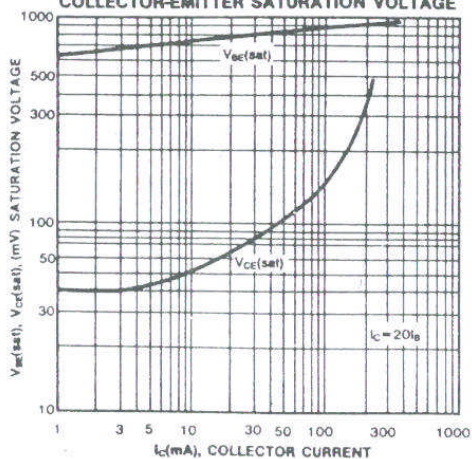
TRANSISTOR 三極管(SOUTH KOREA SEMICONDUCTOR)

SK9014

STATIC CHARACTERISTIC



DC CURRENT GAIN

BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE

CURRENT GAIN-BANDWIDTH PRODUCT

