SOT-23 Plastic-Encapsulate Transistors

S9014LT1   TRANSISTOR   NPN

SOT—23
1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

· **High total power dissipation.(p_c=0.2w)**

· **Complementary to S9015LT1**

MARKING: L6 J6

MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.1	A
P_C	Collector Dissipation	0.2	W
T_J, T_{stg}	Junction and Storage Temperature	-55-150	

**ELECTRICAL CHARACTERISTICS Tamb=25 unless otherwise specified**
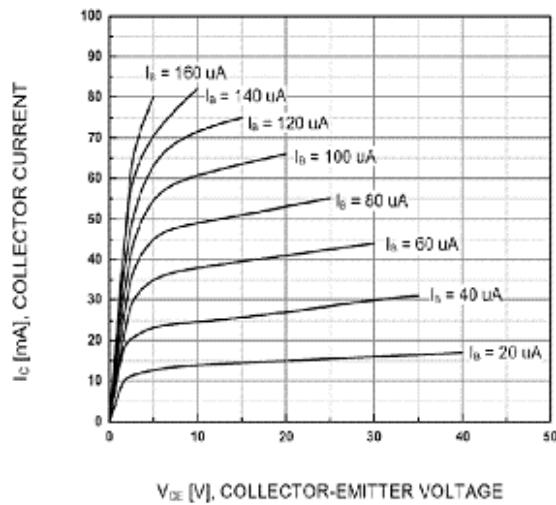
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic= 100μ A I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic= 0.1mA I_B=0	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μ A I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=50 V , I_E=0			0.1	μ A
Collector cut-off current	I_{CEO}	V_{CE}=35V , I_B=0			0.1	μ A
Emitter cut-off current	I_{EBO}	V_{EB}= 3V , I_C=0			0.1	μ A
DC current gain	h_{FE}	V_{CE}=5V, I_C= 1mA	200		1000	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=100 mA, I_B= 5mA			0.3	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=100 mA, I_B= 5mA			1	V
Transition frequency	f_T	V_{CE}=5V, I_C= 10mA f=30MHz	150			MHz

CLASSIFICATION OF $h_{FE(1)}$
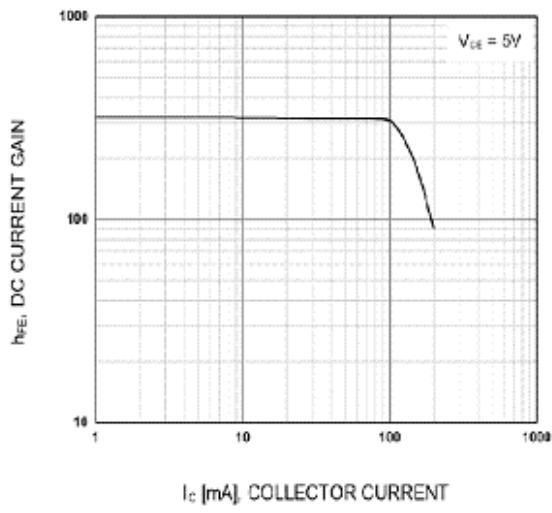
Rank	C	D
Range	200- 400	400- 1000
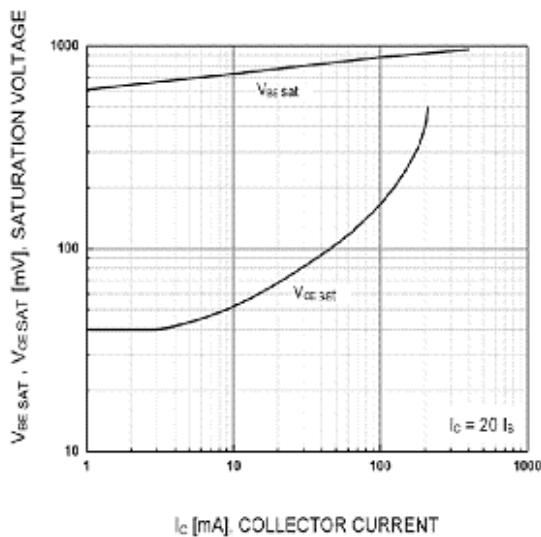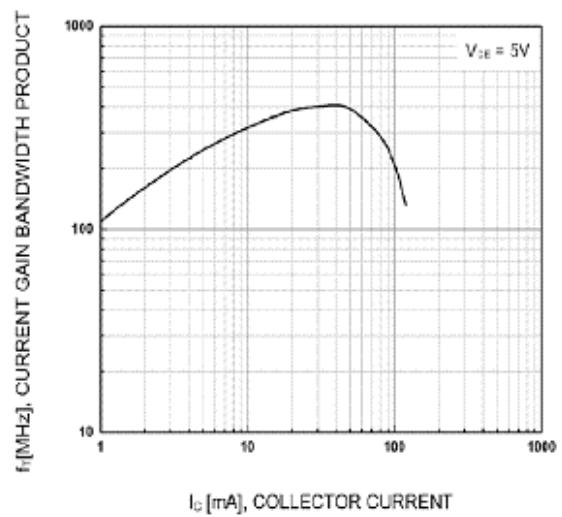
Static Characteristic

**DC current Gain**

Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

Current Gain Bandwidth Product