



SOT-23 Plastic-Encapsulate Transistors

S9014LT1 TRANSISTOR (NPN)

FEATURES

- High total power dissipation.($p_c=0.2w$)
- Complementary to S9015LT1

MARKING: L6 J6



MAXIMUM RATINGS* $T_A=25^{\circ}C$ 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 ($T_{amb}=25$ unless otherwise specified)

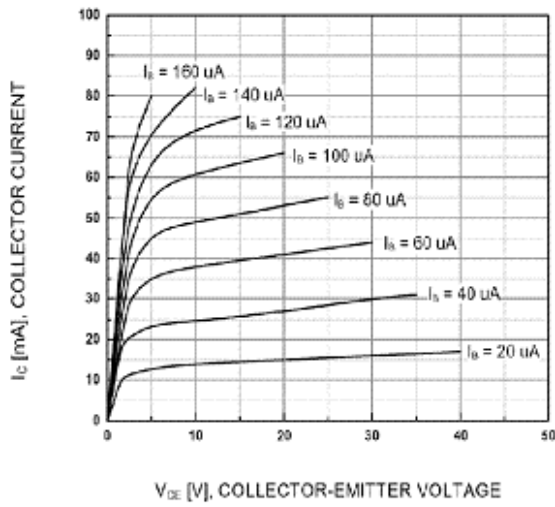
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current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

CLASSIFICATION OF $h_{FE(1)}$

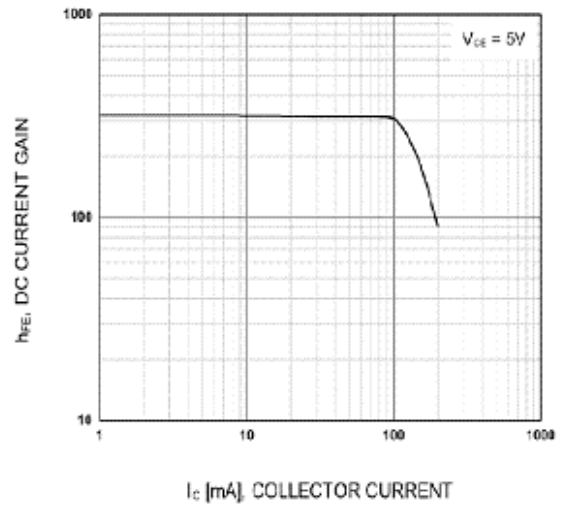
Rank	C	D
Range	200-400	400-1000

Typical Characteristics

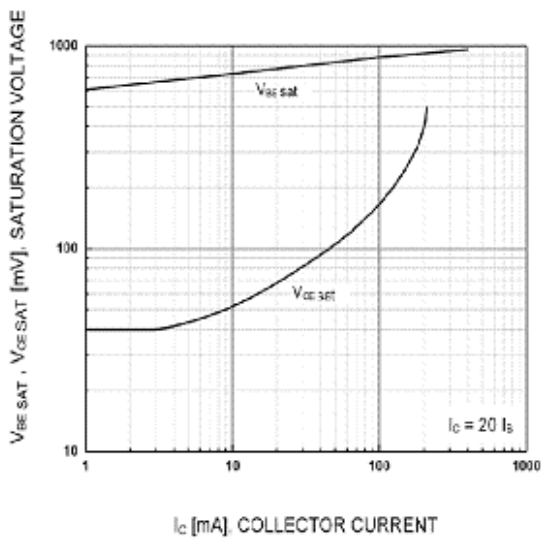
S9014LT1



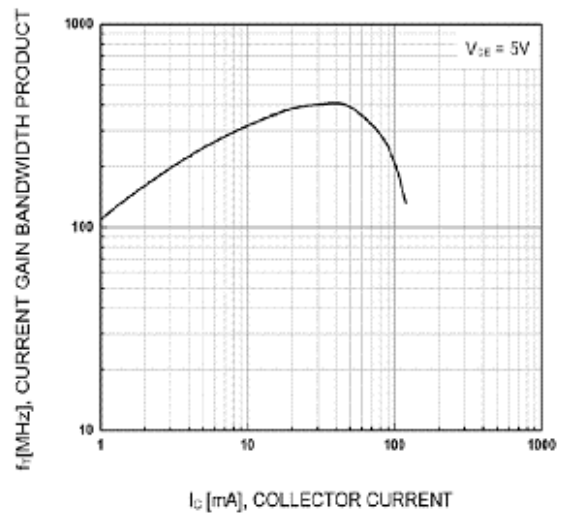
Static Characteristic



DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product