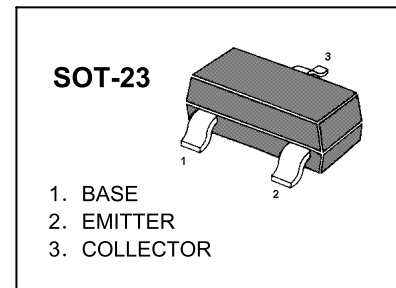


S9014 TRANSISTOR (NPN)

FEATURES

Complementary to S9015

MARKING: J6



MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

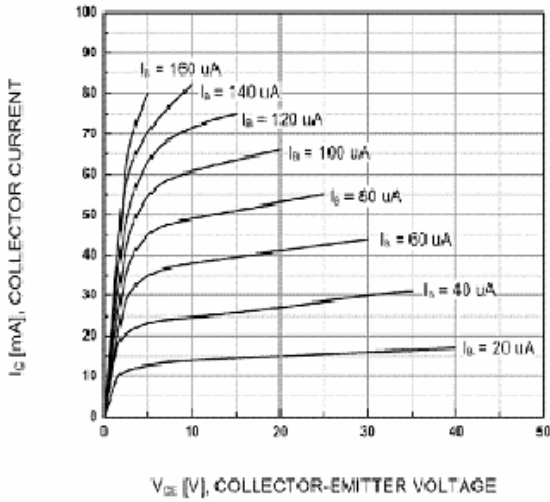
Symbol	Parameter	value	units
V_{CB0}	Collector-Base Voltage	50	V
V_{CE0}	Collector-Emitter Voltage	45	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	0.1	A
P_C	Collector Power Dissipation	0.2	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55-150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

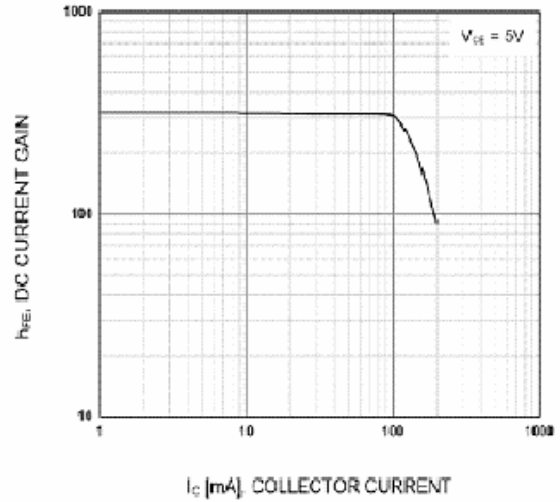
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CB0}$	$I_C=100\mu\text{A}$, $I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CE0}$	$I_C=0.1\text{mA}$, $I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EB0}$	$I_E=100\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CB0}	$V_{CB}=50\text{V}$, $I_E=0$			0.1	μA
Collector cut-off current	I_{CE0}	$V_{CE}=35\text{V}$, $I_B=0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB}=3\text{V}$, $I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=5\text{V}$, $I_C=1\text{mA}$	200		450	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=5\text{mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$, $I_B=5\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=5\text{V}$, $I_C=10\text{mA}$ $f=30\text{MHz}$	150			MHz

Typical Characteristics

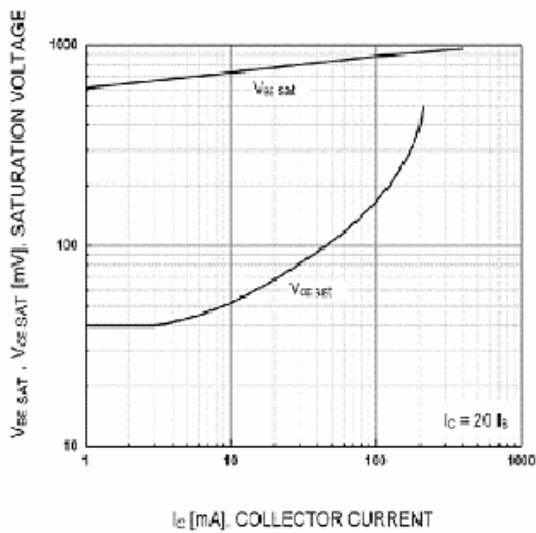
S9014



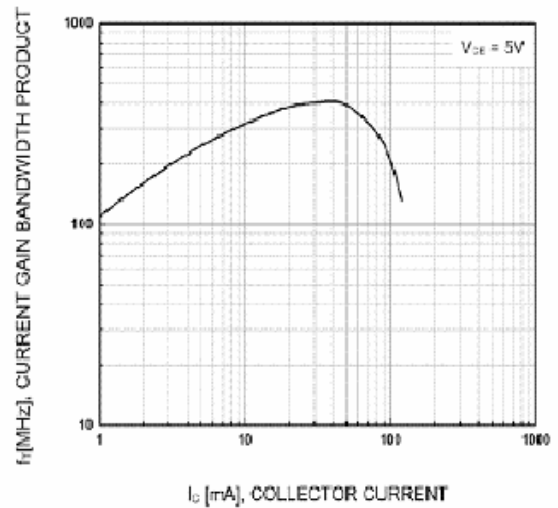
Static Characteristic



DC current Gain



Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

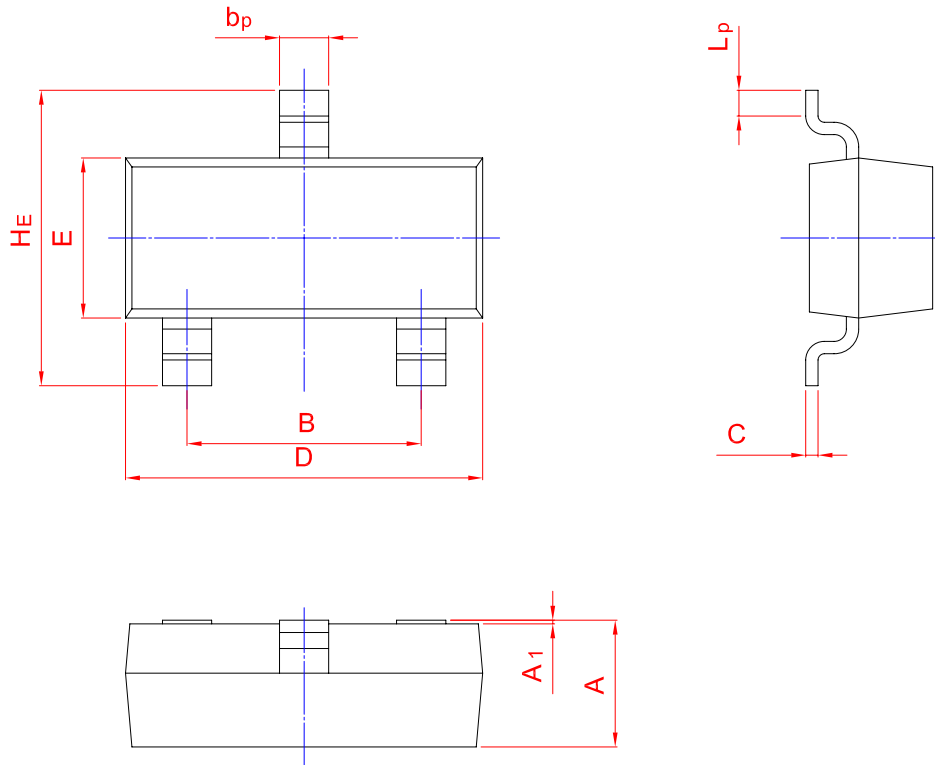
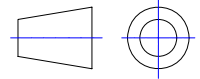


Current Gain Bandwidth Product

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	Hε	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20