

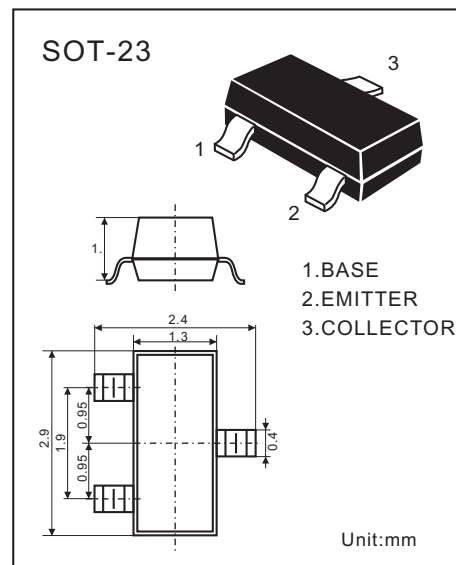
PNP EPITAXIAL SILICON TRANSISTOR

**1W OUTPUT AMPLIFIER OF PORTABLE
RADIOS IN CLASS
B PUSH-PULL OPERATION**

Complement to 9013G

Collector Current : $I_C = -500\text{mA}$

High Total Power Dissipation $P_C = 225\text{mW}$



ABSOLUTE MAXIMUM RATINGS

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Collector Dissipation $T_a = 25^\circ\text{C}^*$	P_D	225	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

Electrical Characteristics

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

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CBO}	-40			V	$I_C = -100\mu\text{A}$, $I_E = 0$
Collector-Emitter Breakdown Voltage#	BV_{CEO}	-20			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-Base Cutoff Current	I_{CBO}			-100	nA	$V_{CB} = -25\text{V}$, $V_C = 0$
Emitter-Base Cutoff Current	I_{EBO}			-100	nA	$V_{CB} = -3\text{V}$, $I_C = 0$
DC Current Gain	H_{FE1}	64	120	300		$V_{CE} = -1\text{V}$, $I_C = -50\text{mA}$
DC Current Gain	H_{FE2}	30				$V_{CE} = -1\text{V}$, $I_C = -500\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.18	-0.6	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.95	-1.2	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}$
Base-Emitter On Voltage	$V_{BE(on)}$	-0.6	-0.67	-0.7	V	$V_{CE} = -1\text{V}$, $I_C = -10\text{mA}$

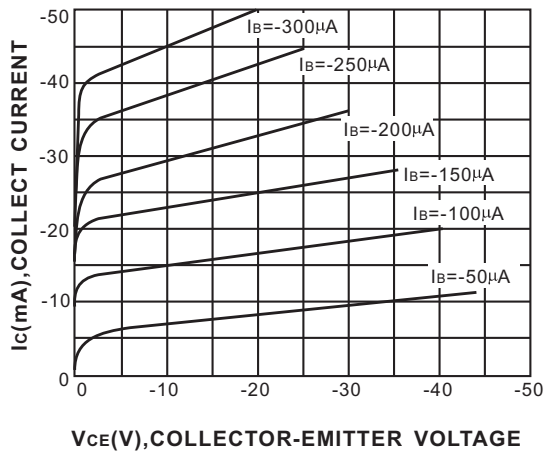
*Total Device Dissipation: $FR = 1 \times 0.75 \times 0.062$ in Board Derate 25°C

#Pulse Test: Pulse Width $\leq 300\mu\text{S}$ Duty cycle $\leq 2\%$

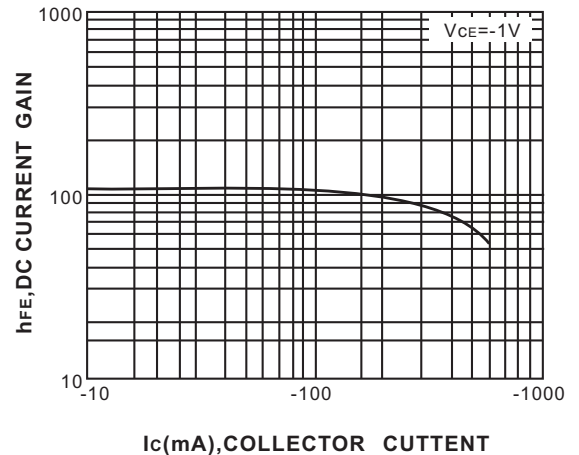
DEVICE MARKING:

9012=J6

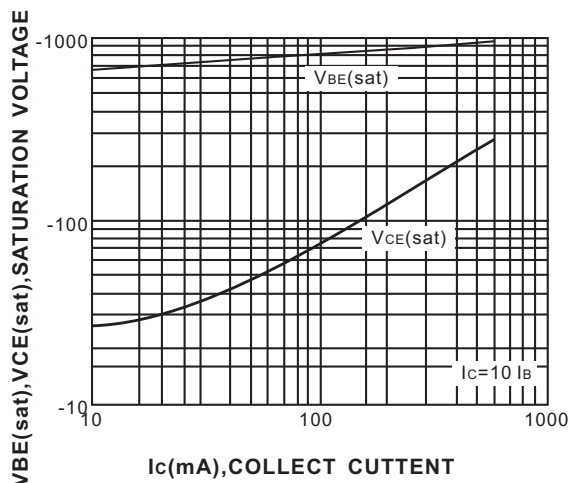
Typical Characteristics



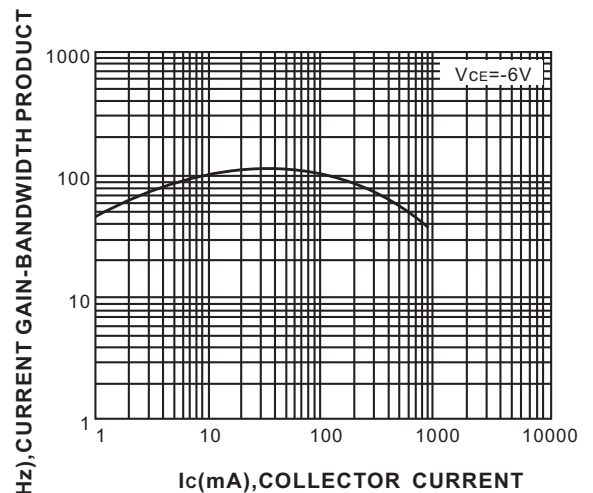
Static Characteristic



DC Current Gain



Base-Emitter Saturation Voltage
Collector-Emittor Saturation Voltage



Current Gain Bandwidth Product