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SS9012

1W Output Amplifier of Potable Radios in Class B Push-pull Operation.

- High total power dissipation. ($P_T=625\text{mW}$)
- High Collector Current. ($I_C = -500\text{mA}$)
- Complementary to SS9013
- Excellent h_{FE} linearity.



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}, I_B = 0$	-20			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -25\text{V}, I_E = 0$			-100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -3\text{V}, I_C = 0$			-100	nA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -1\text{V}, I_C = -50\text{mA}$ $V_{CE} = -1\text{V}, I_C = -500\text{mA}$	64 40	120 90	202	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.18	-0.6	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.95	-1.2	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	-0.6	-0.67	-0.7	V

h_{FE} Classification

Classification	D	E	F	G	H
h_{FE1}	64 ~ 91	78 ~ 112	96 ~ 135	112 ~ 166	144 ~ 202

Typical Characteristics

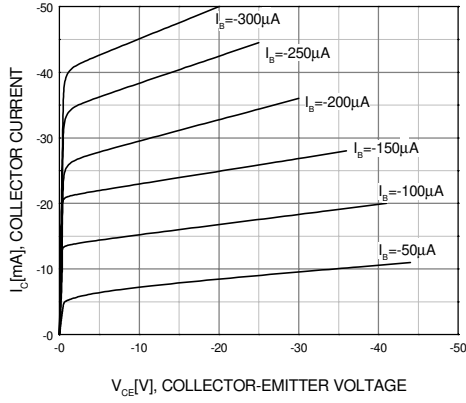


Figure 1. Static Characteristic

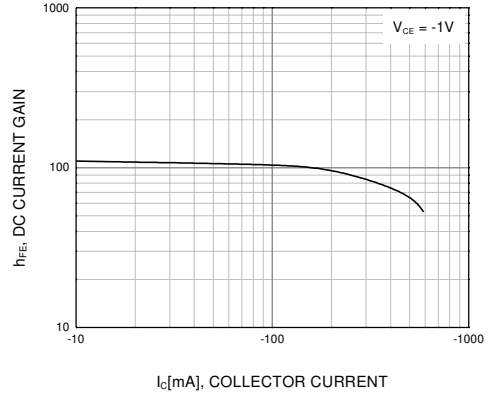


Figure 2. DC current Gain

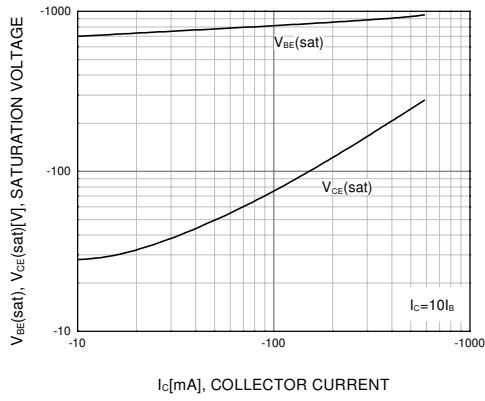


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

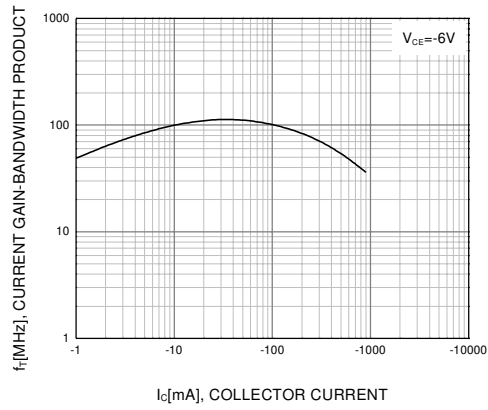
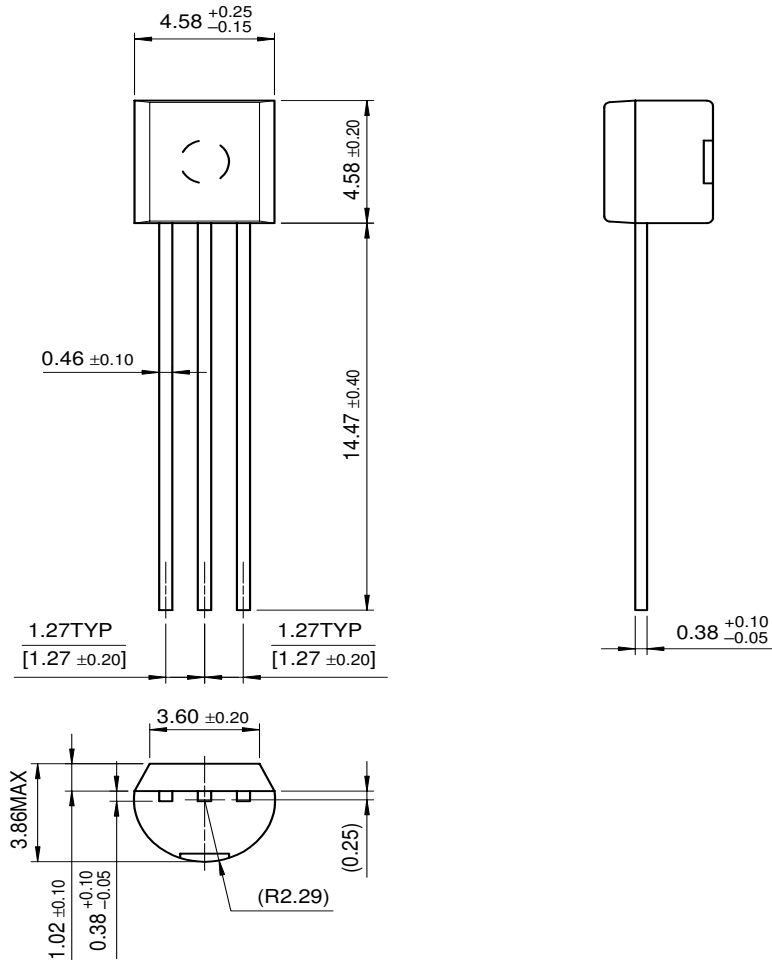


Figure 4. Current Gain Bandwidth Product

Package Dimensions

TO-92



Dimensions in Millimeters

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