

SS9013

NPN EPITAXIAL SILICON TRANSISTOR

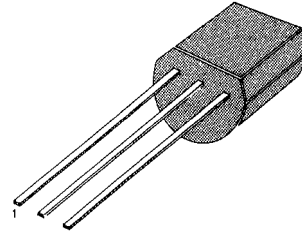
1W OUTPUT AMPLIFIER OF POTABLE RADIOS IN CLASS B PUSH-PULL OPERATION.

- High total power dissipation. ($P_T=625\text{mW}$)
- High Collector Current. ($I_C=500\text{mA}$)
- Complementary to SS9012
- Excellent h_{FE} linearity.

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	20	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

TO-92



1. Emitter 2. Base 3. Collector

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=100\mu\text{A}, I_E=0$	40			V
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C=1\text{mA}, I_B=0$	20			V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector Cut-off Current	I_{CB0}	$V_{CB}=25\text{V}, I_E=0$			100	nA
Emitter Cut-off Current	I_{EB0}	$V_{EB}=3\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE1}	$V_{CE}=1\text{V}, I_C=50\text{mA}$	64	120	202	
	h_{FE2}	$V_{CE}=1\text{V}, I_C=500\text{mA}$	40	120		
Collector-Emitter Saturation Voltage	$V_{CE}(\text{sat})$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.16	0.6	V
Base-Emitter Saturation Voltage	$V_{BE}(\text{sat})$	$I_C=500\text{mA}, I_B=50\text{mA}$		0.91	1.2	V
Base-Emitter On Voltage	$V_{BE}(\text{on})$	$V_{CE}=1\text{V}, I_C=10\text{mA}$	0.6	0.67	0.7	V

h_{FE} CLASSIFICATION

Classification	D	E	F	G	H
$h_{FE}(1)$	64-91	78-112	96-135	112-166	144-202

