

SS9016

NPN EPITAXIAL SILICON TRANSISTOR

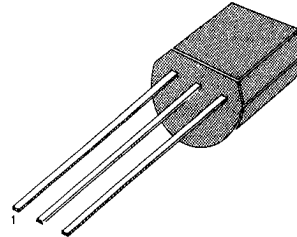
AM CONVERTER, FM/RF AMPLIFIER OF LOW NOISE.

- High total power dissipation. ($P_T=400\text{mW}$)

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	30	V
Collector-Emitter Voltage	V_{CE0}	20	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	25	mA
Collector Dissipation	P_C	400	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

TO-92



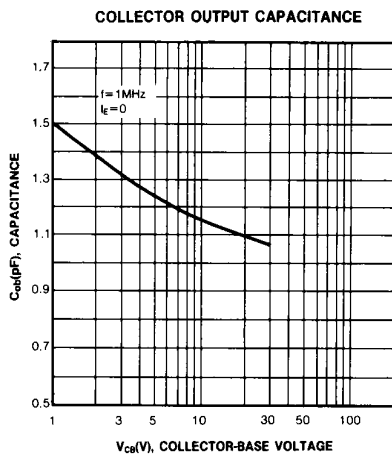
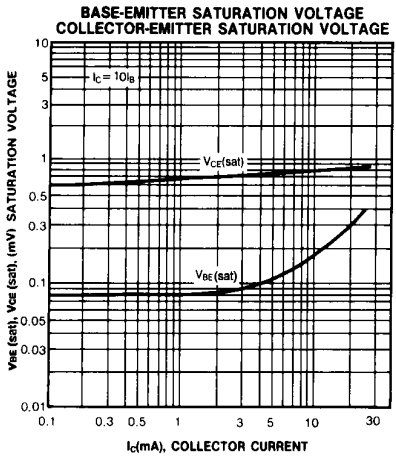
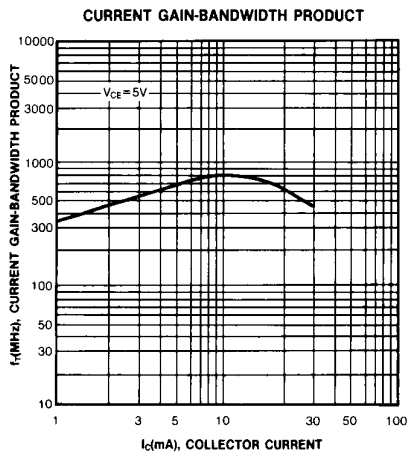
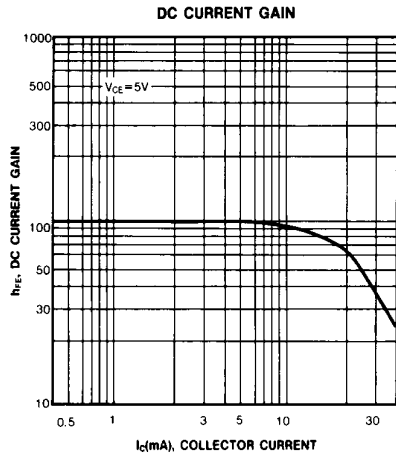
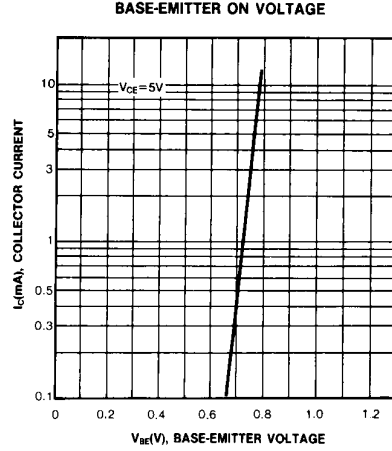
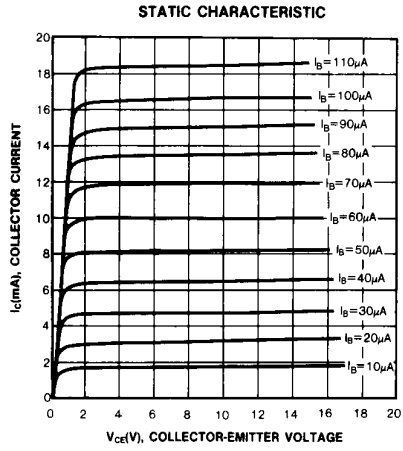
1. Emitter 2. Base 3. Collector

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C=100\mu\text{A}, I_E=0$	30			V
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C=1\text{mA}, I_B=0$	20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu\text{A}, I_C=0$	4			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			100	nA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=1\text{mA}$	28	90	198	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.1	0.3	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=5\text{V}, I_C=1\text{mA}$		0.72		V
Output Capacitance	C_{OB}	$V_{CB}=10\text{V}, I_E=0$ $f=1\text{MHz}$		1.2	1.6	pF
Current Gain-Bandwidth Product	f_T	$V_{CE}=5\text{V}, I_C=1\text{mA}$	400	620		MHz
Noise Figure	NF	$V_{CE}=5\text{V}, I_C=1.0\text{mA}$ $f=100\text{MHz}, R_S=50\Omega$		3.0	5.0	dB

h_{FE} CLASSIFICATION

Classification	D	E	F	G	H	I
h_{FE}	28-45	39-60	54-80	72-108	97-146	132-198



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