

Ordering number:EN4411

NPN Epitaxial Planar Silicon Transistor



2SC4910

VHF-Band Power Amplifier Applications

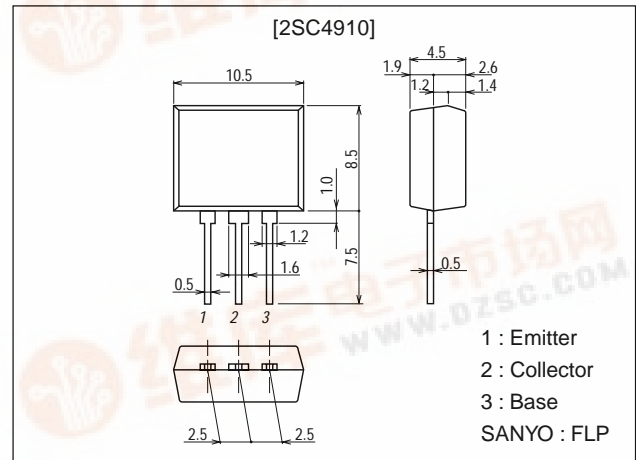
Features

- On-chip emitter ballast resistors.

Package Dimensions

unit:mm

2084B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		38	V
Collector-to-Emitter Voltage	V_{CEO}		18	V
Emitter-to-Base Voltage	V_{EBO}		3	V
Collector Current	I_C		0.75	A
Collector Current (Pulse)	I_{CP}		1.2	A
Base Current	I_B		150	mA
Collector Dissipation	P_C		1.5	W
Junction Temperature	T_j		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=30V, I_E=0$			50	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=2V, I_C=0$			50	μA
DC Current Gain	h_{FE}	$V_{CE}=10V, I_C=200mA$	20		200	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	38			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	18			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	3			V

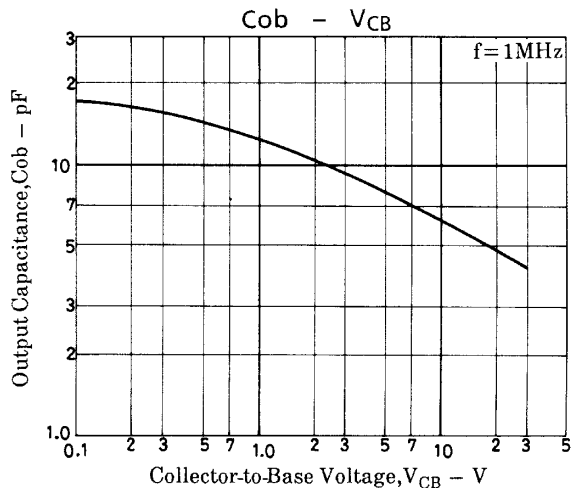
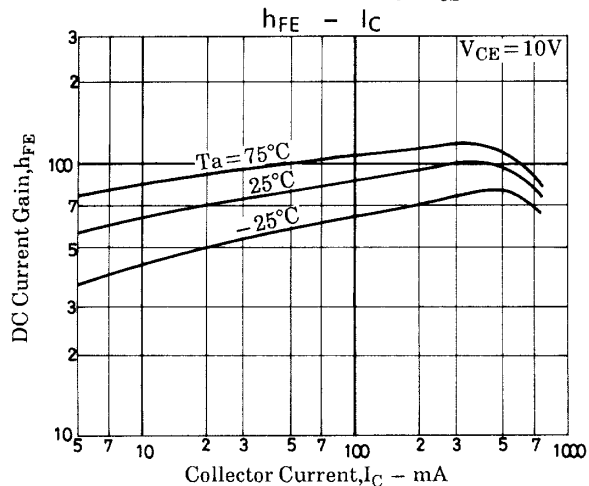
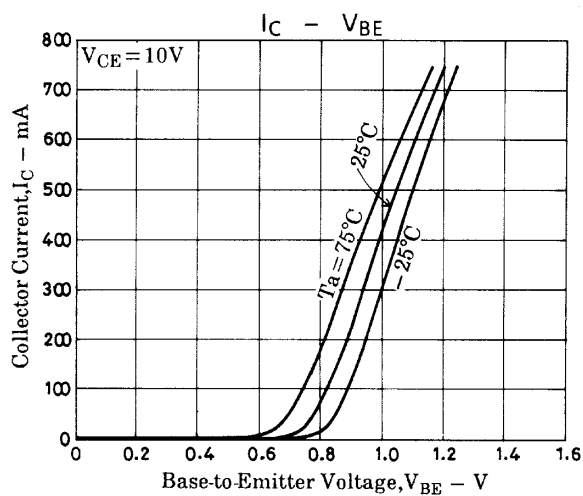
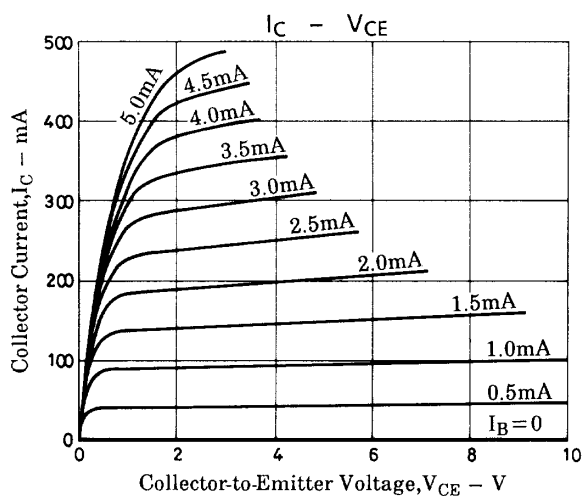
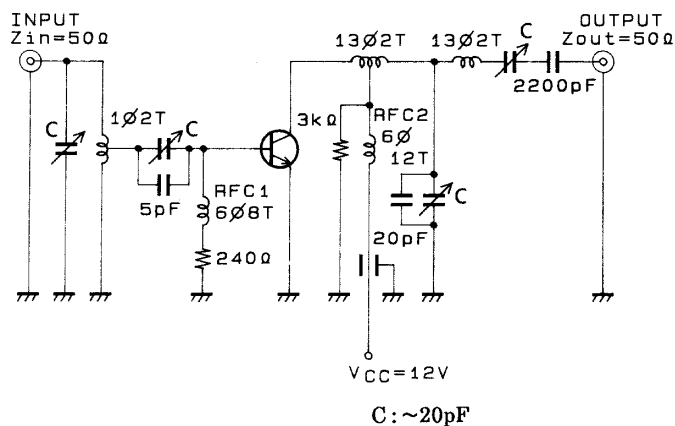
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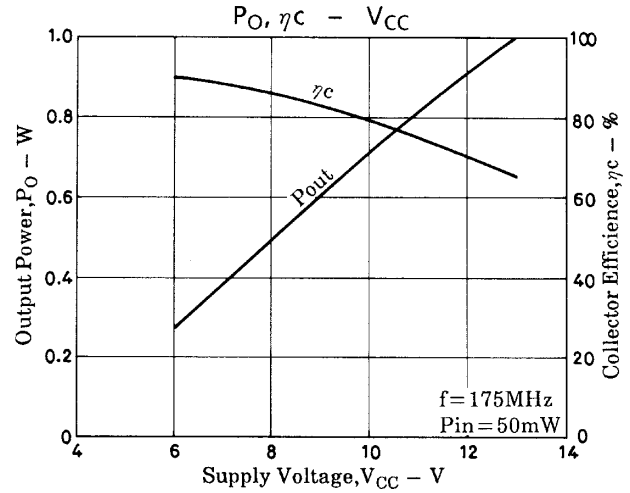
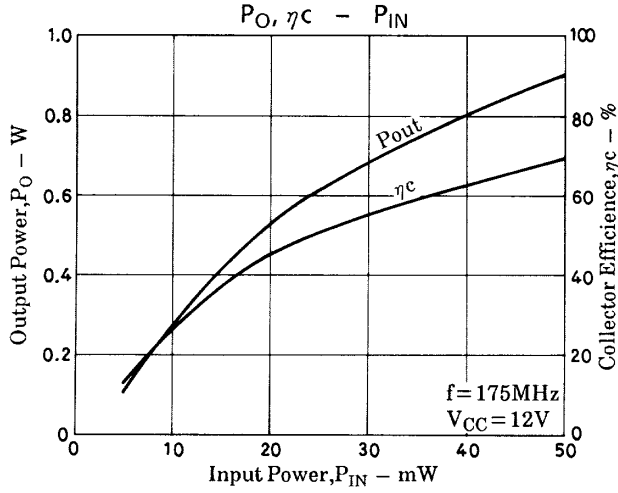
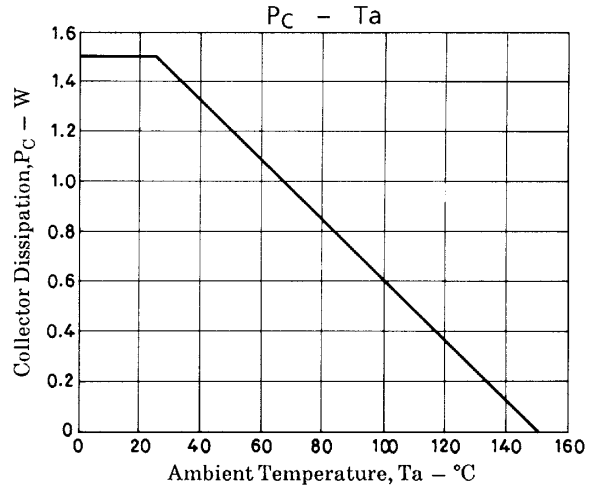
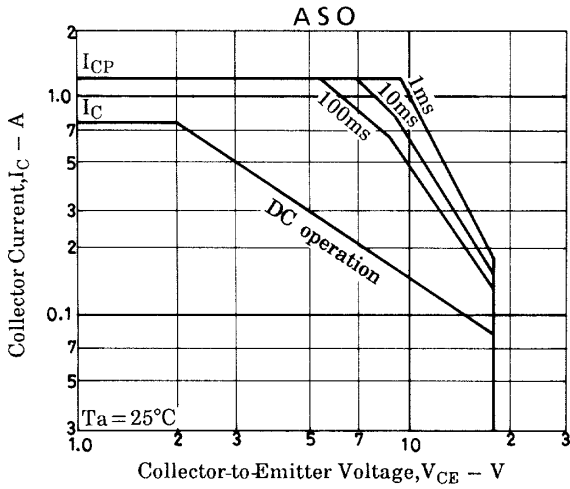
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		6	10	pF
Output Power	P_O	$V_{CC}=12V, f=175MHz, P_{IN}=50mW$	0.7	0.9		W
Collector Efficiency	η_c	See specified Test Circuit.	55	70		%

Collector Efficiency Test Circuit

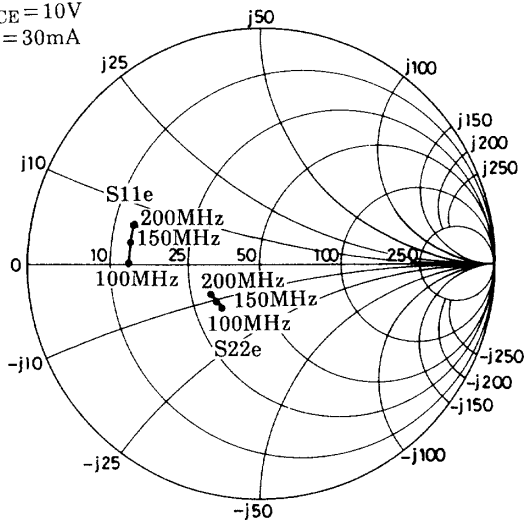


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S parameter

$Z_0 = 50\Omega$
 $V_{CE} = 10\text{V}$
 $I_C = 30\text{mA}$



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