Ordering number:EN3184

NPN Epitaxial Planar Silicon Transistor

2SC4432

High-Frequency General-Purpose

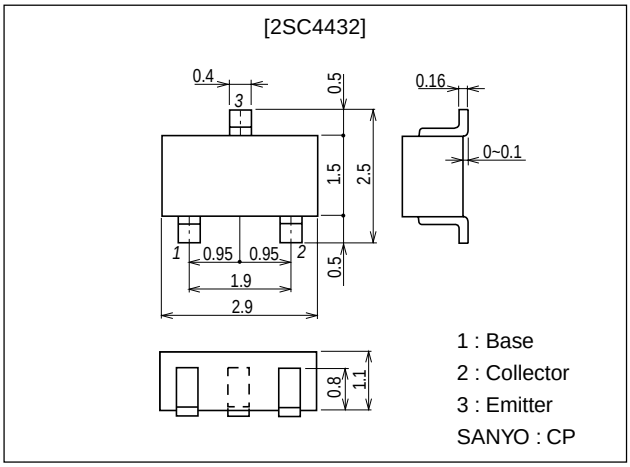
Features

- High power gain.
- High cutoff frequency.
- Small C_{ob}, C_{re}.
- Very small-sized package permitting the 2SC4432-applied sets to be made small and slim.

Package Dimensions

unit:mm

2018B



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		40	V
Collector-to-Emitter Voltage	V_{CEO}		18	V
Emitter-to-Base Voltage	V_{EBO}		3	V
Collector Current	I_C		50	mA
Collector Dissipation	P_C		250	mW
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–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}=18V, I_E=0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=2V, I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=10V, I_C=5mA	60*		270*	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=5mA		750		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		0.7	1.2	pF
Reverse transfer Capacitance	C_{re}	V_{CB}=10V, f=1MHz		0.45		pF

* : The 2SC4432 is classified by 5mA h_{FE} as follows :

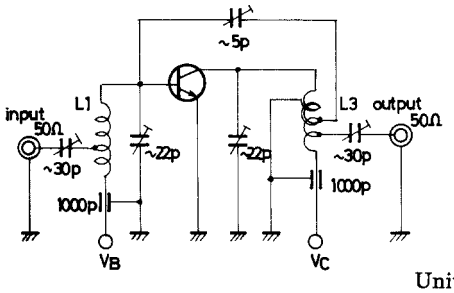
60	3	120	90	4	180	135	5	270

Marking : RT
h_{FE} rank : 3, 4, 5

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.2	V
Base-to-Collector Time Constant	$r_{bb}'C_C$	V_{CE}=10V, I_C=5mA, f=31.9MHz			23	ps
Power Gain	PG	V_{CE}=10V, I_C=10mA, f=100MHz		28		dB

PG Test Circuit



Unit (capacitance : F)

L_1 : 1mmø plated wire, 10mmø 5T, pitch 15mm,
tap : 2T from base side
L_2 : 1mmø plated wire, 10mmø 7T, pitch 10mm,
tap : 2T from V_C side
L_3 : 1mmø enamel wire, 10mmø 3T, pitch 10mm