Ordering number : ENN3184A

NPN Epitaxial Planar Silicon Transistor

2SC4432

High-Frequency General-Purpose Amplifier Applications

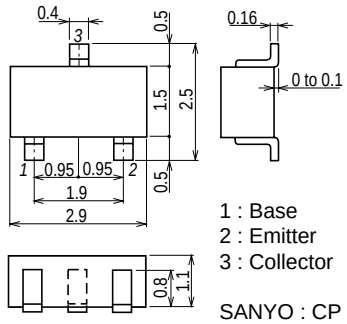
Features

- High power gain.
- High cutoff frequency.
- Small Cob, Cre.
- Ultrasmall-sized package permitting the 2SC4432-applied sets to be made small and slim.

Package Dimensions

unit : mm
2018B

[2SC4432]



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	Cob	V_{CB}=10V, f=1MHz		0.7	1.2	pF
Reverse Transfer Capacitance	Cre	V_{CB}=10V, f=1MHz		0.45		pF

Marking : RT

Continued on next page.

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

Rank	3	4	5
h_{FE}	60 to 120	90 to 180	135 to 270

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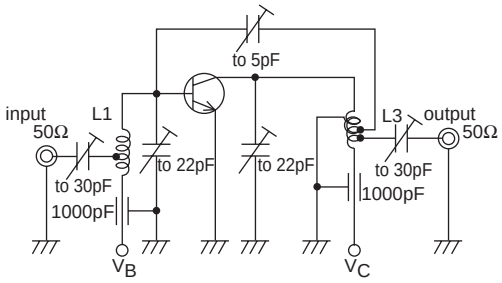
Continued from preceding page.

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



L1 : 1mmϕ plated wire, 10mmϕ 5T, pitch 15mm,
tap : 2T from base side
L2 : 1mmϕ plated wire, 10mmϕ 7T, pitch 10mm,
tap : 2T from V_C side
L3 : 1mmϕ enamel wire, 10mmϕ 3T, pitch 10mm