



SANYO Semiconductors

DATA SHEET

2SA1318/2SC3331 — AF Amp Applications

PNP/NPN Epitaxial Planar Silicon Transistors

Use

. Capable of being used in the low frequency to high frequency range.

Features

. Large current capacity and wide ASO.

(): 2SA1318

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)60	V
Collector to Emitter Voltage	V _{CEO}	(-)50	V
Emitter to Base Voltage	V _{EBO}	(-)6	V
Collector Current	I _C	(-)200	mA
Collector Current (Pulse)	I _{CP}	(-)400	mA
Collector Dissipation	P _C	500	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

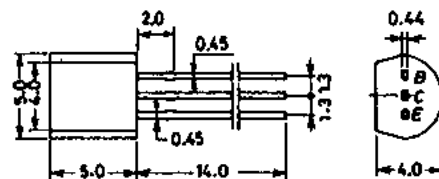
			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)40V, I _E =0			(-)0.1	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =(-)5V, I _C =0			(-)0.1	μA
DC Current Gain	h _{FE} (1)	V _{CE} =(-)6V, I _C =(-)1mA	100*		800*	
			(100)		(560)	
Gain-Bandwidth Product	f _T	V _{CE} =(-)6V, I _C =(-)10mA	70			
			200			MHz
Output Capacitance	C _{ob}	V _{CB} =(-)6V, f=1MHz		3.0		pF
				(4.5)		

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* The 2SA1318/2SC3331 are classified by 1mA h_{FE} as follows:

2SA1318	100	R	200	140	S	280	200	T	400	280	U	560			
2SC3331	100	R	200	140	S	280	200	T	400	280	U	560	400	V	800

Case Outline 2003A
(unit:mm)



JEDEC : TO-92
EIAJ : SC-43
SANYO : NP

B. Base
C. Collector
E. Emitter

Specifications and information herein are subject to change without notice.

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			min	typ	max	unit
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)100mA, I_B = (-)10mA$			(-)0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)100mA, I_B = (-)10mA$			(-)1.0	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(-)60			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$	(-)6			V

