Ordering number : EN 1600A

SANYO Semiconductors

DATA SHEET

PNP/NPN Epitaxial Planar Silicon Transistors

2SA1318/2SC3331 — AF Amp Applications

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_{CBO}	(-)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	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	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)	
	$h_{FE(2)}$	V_{CE}=(-)6V, I_C=(-)0.1mA	70			
Gain-Bandwidth Product	f_T	V_{CE}=(-)6V, I_C=(-)10mA		200		MHz
Output Capacitance	C_{ob}	V_{CB}=(-)6V, f=1MHz		3.0		pF
				(4.5)		

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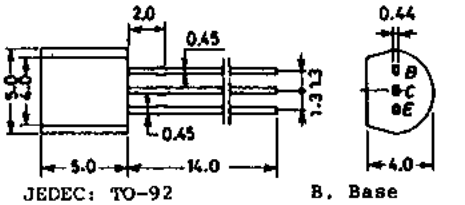
* The 2SA1318/2SC3331 are classified by 1mA h_{FE} as follows:

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

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Continued from preceding page.

			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=(-)10μA, I_E=0	(-)60			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0	(-)6			V