

SANYO	No.2531A	2SC4204
	NPN Epitaxial Planar Silicon Transistor	
High-h_{FE}, AF Amp Applications		

Applications

- . AF amp, various drivers

Features

- . Adoption of MBIT process
- . High DC current gain ($h_{FE}=800$ to 3200)
- . Large current capacity ($I_C=0.7A$)
- . Low collector to emitter saturation voltage ($V_{CE(sat)} \leq 0.5V$)
- . High V_{EBO} ($V_{EBO} \geq 15V$)

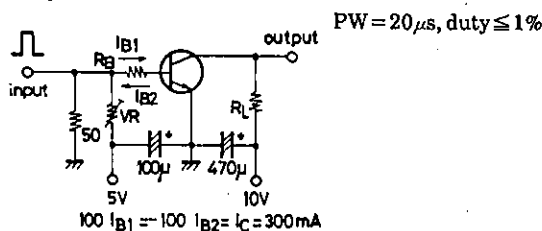
Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	15	V
Collector Current	I_C	0.7	A
Collector Current(Pulse)	I_{CP}	1.5	A
Collector Dissipation	P_C	0.6	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

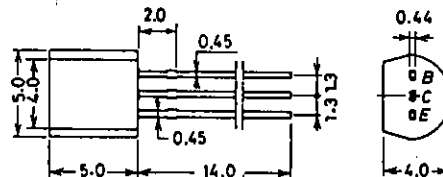
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=10V, I_C=0$			0.1	μA
DC Current Gain	h_{FE1}	$V_{CE}=5V, I_C=50mA$	800	1500	3200	
	h_{FE2}	$V_{CE}=5V, I_C=500mA$	600			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		270		MHz
Output Capacitance	c_{ob}	$V_{CB}=10V, f=1MHz$		9		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=10mA$	0.15	0.50		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=10mA$	0.9	1.2		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	15			V
Turn-on Time	t_{on}	See specified Test Circuit.		0.1		μs
Storage Time	t_{stg}	"		0.6		μs
Fall Time	t_f	"		0.06		μs

Switching Time Test Circuit



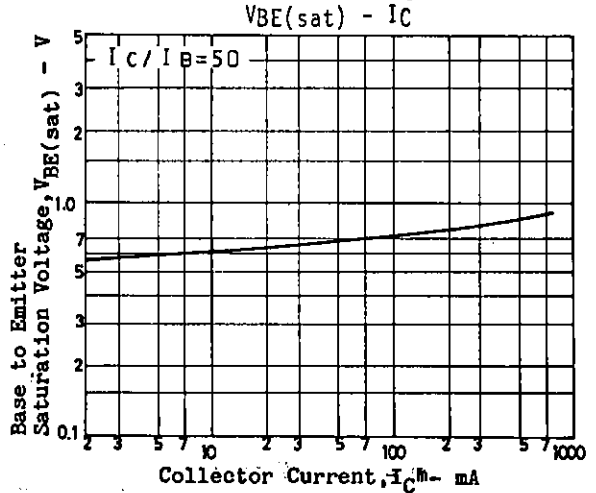
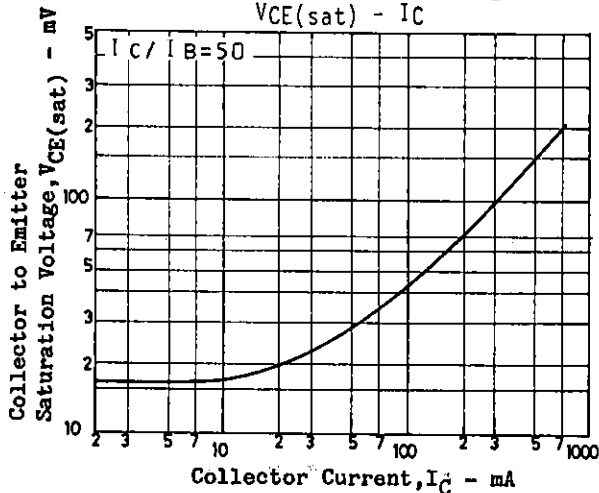
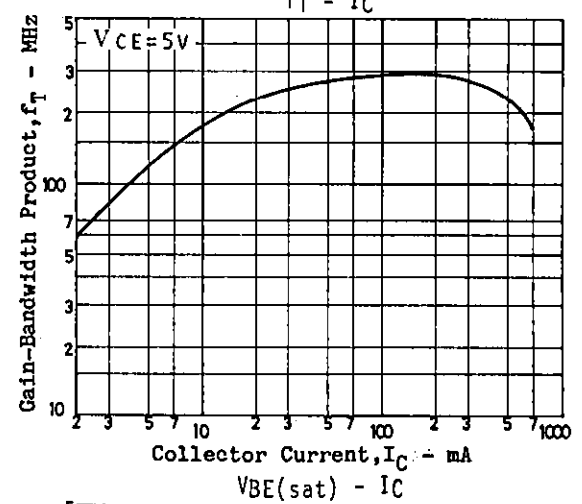
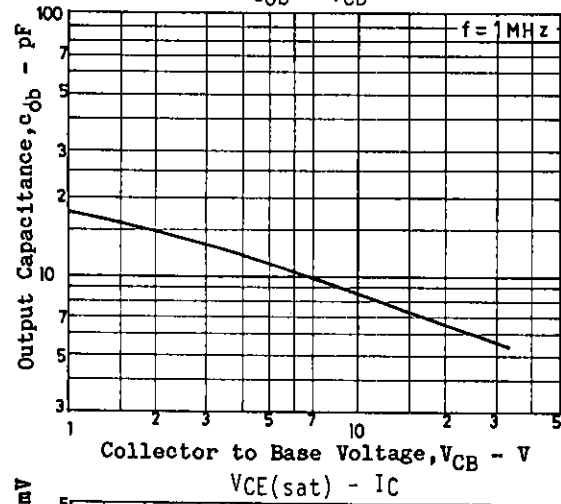
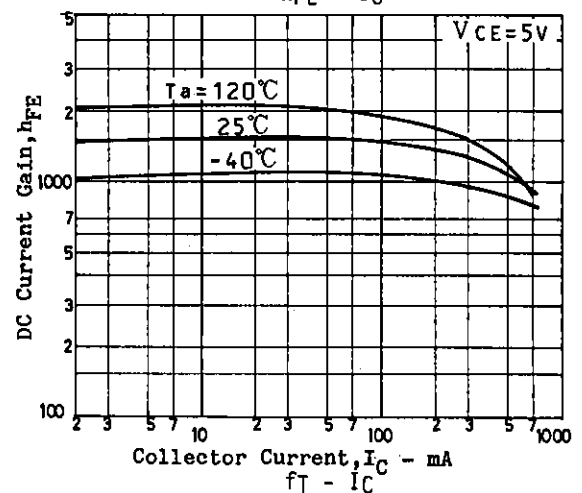
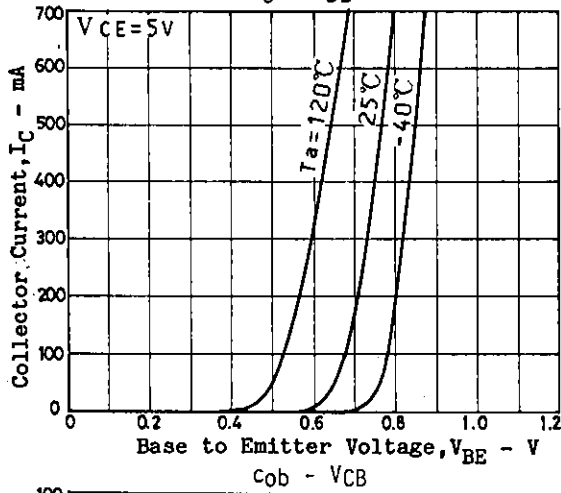
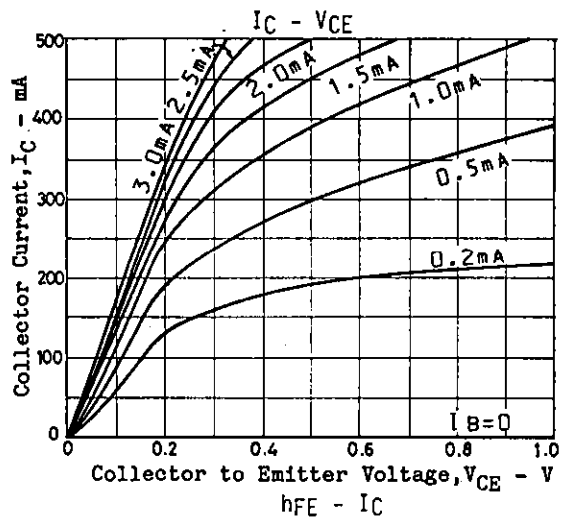
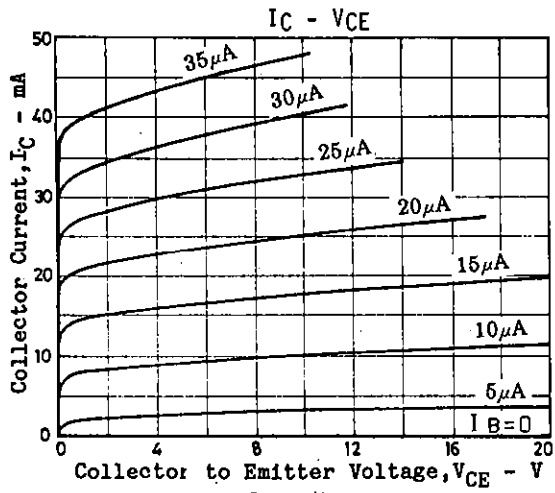
Package Dimensions 2003A

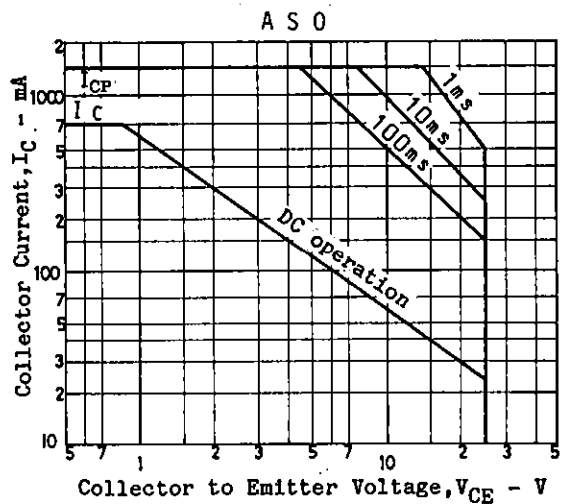
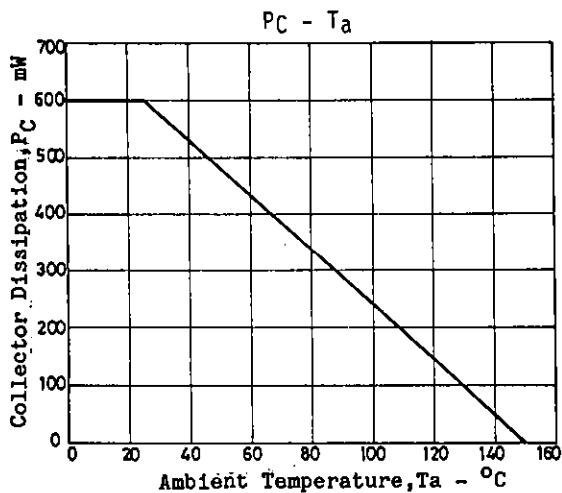
(unit: mm)



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

B. Base
C. Collector
E. Emitter





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