

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)} ≤ 0.5V)
- . High V_{EBO} (V_{EBO} ≥ 15V)

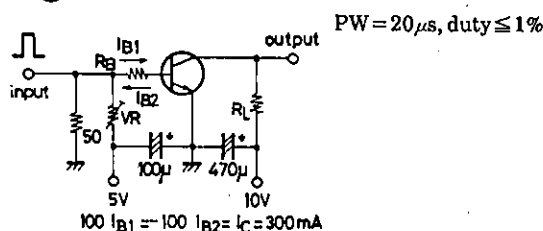
Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V _{CB0}	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 _{CB0}	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 =10μA, I _E =0	30			V
C-E Breakdown Voltage	V(BR)CEO	I _C =1mA, R _{BE} =∞	25			V
E-B Breakdown Voltage	V(BR)EBO	I _E =10μA, 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

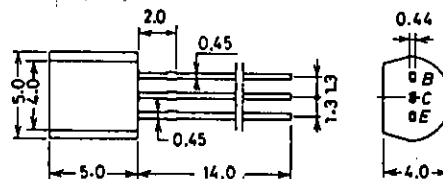
Switching Time Test Circuit



Unit(Resistance : Ω, Capacitance : F)

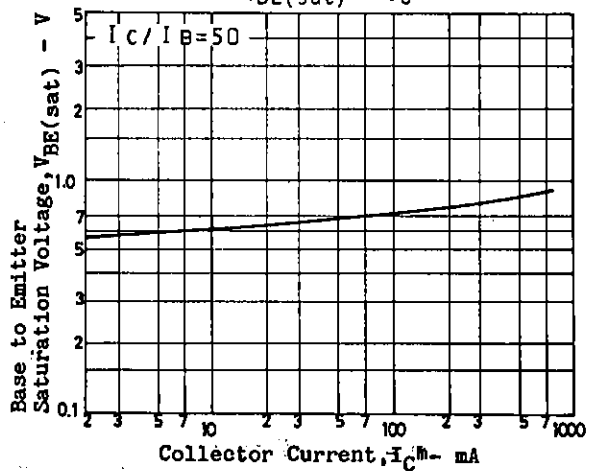
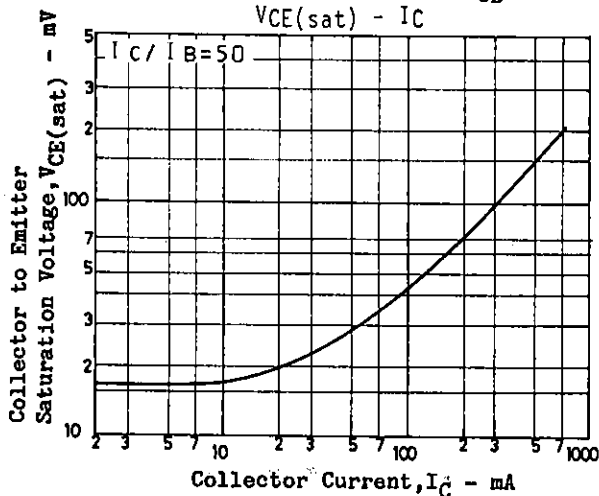
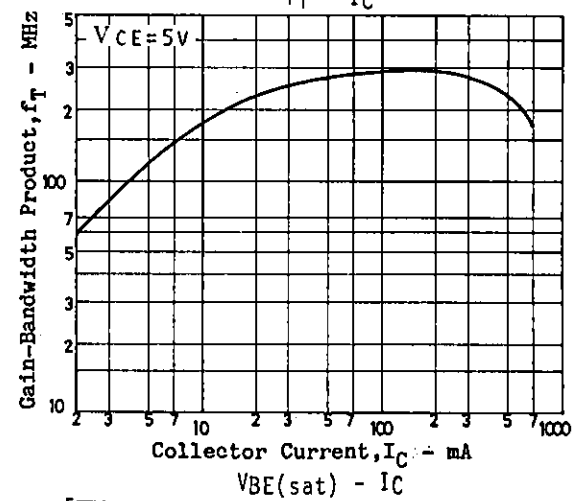
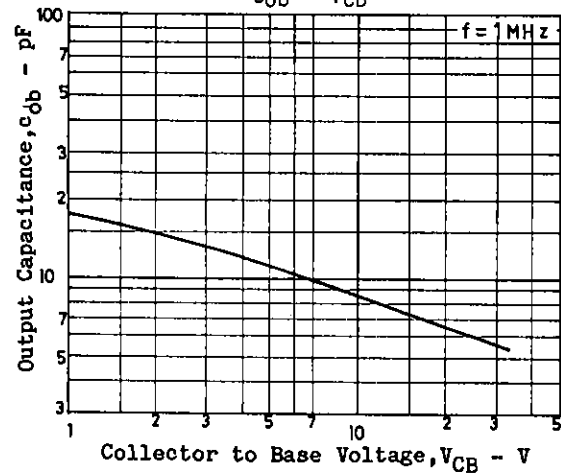
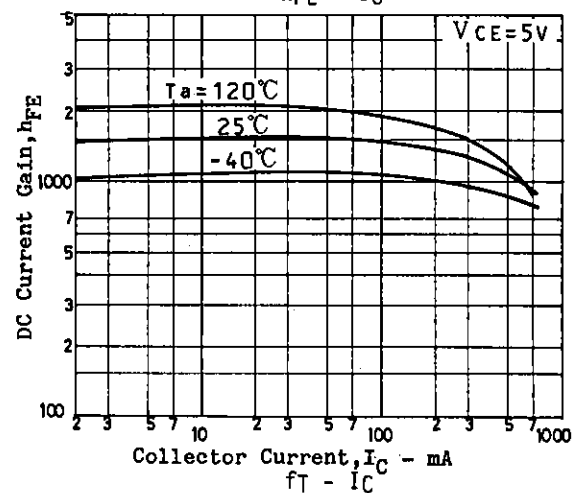
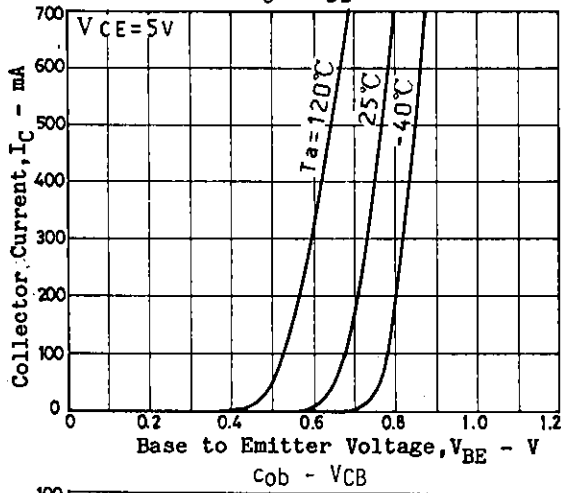
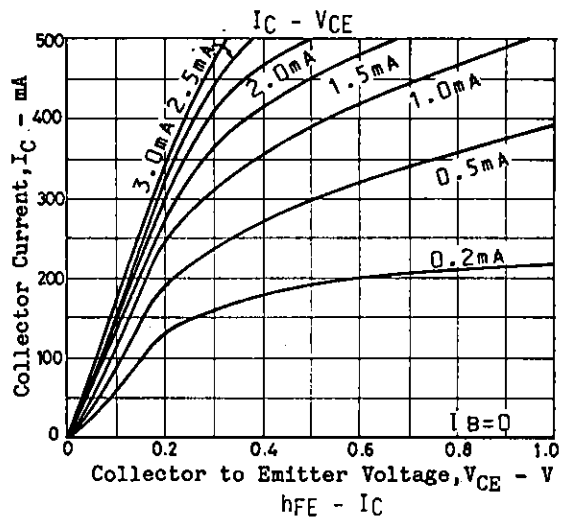
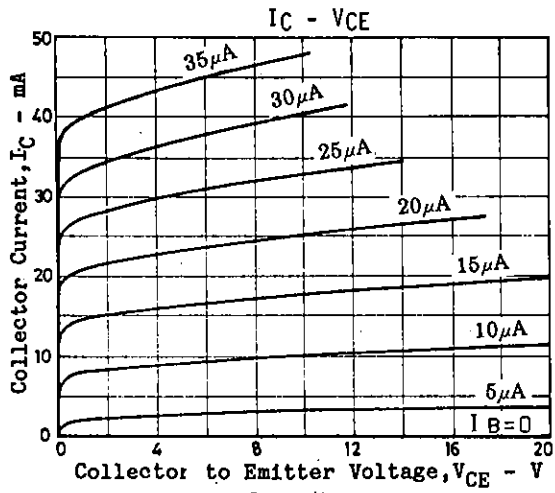
Package Dimensions 2003A

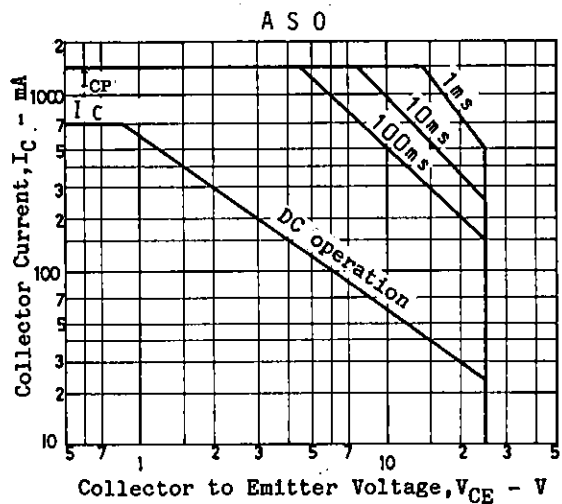
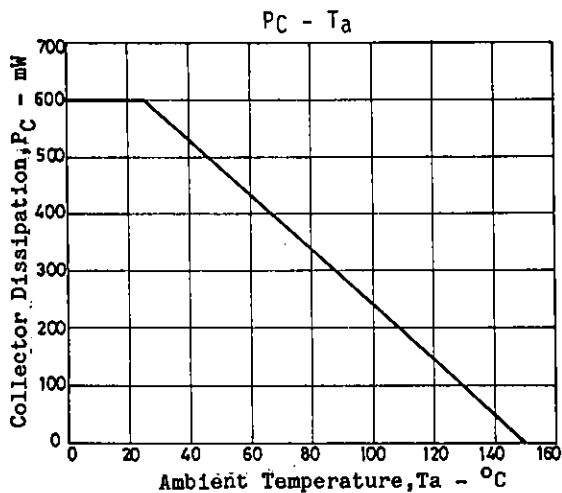
(unit: mm)



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

B. Base
C. Collector
E. Emitter





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