

SANYO	No.2544B	2SC3820
	NPN Epitaxial Planar Type Silicon Transistor High h_{FE} , AF Amp Applications	

Applications

- Drivers, muting circuits

Features

- Adoption of FBET and MBIT processes
- High DC current gain ($h_{FE} = 800$ to 3200)
- Low collector-to-emitter saturation voltage ($V_{CE(sat)} \leq 0.5V$)
- High V_{EBO} ($V_{EBO} \geq 15V$)
- Small c_{ob} ($c_{ob} = 2.0pF$ typ)

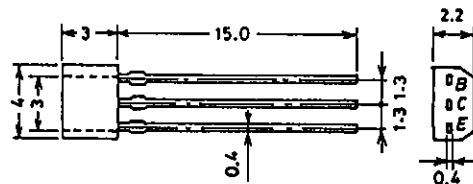
Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	15	V
Collector Current	I_C	100	mA
Collector Current(Pulse)	I_{CP}	200	mA
Collector Dissipation	P_C	300	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

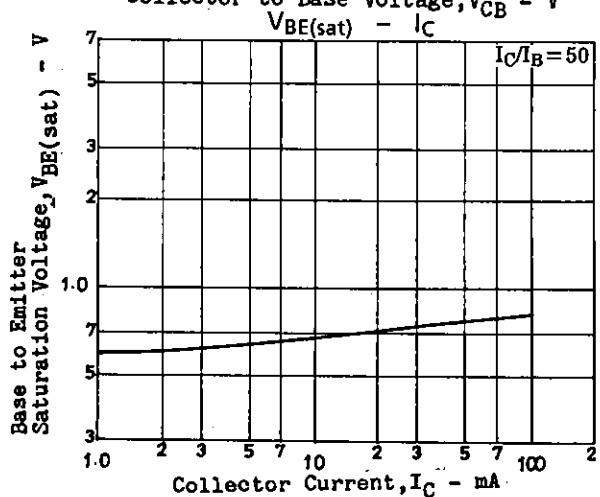
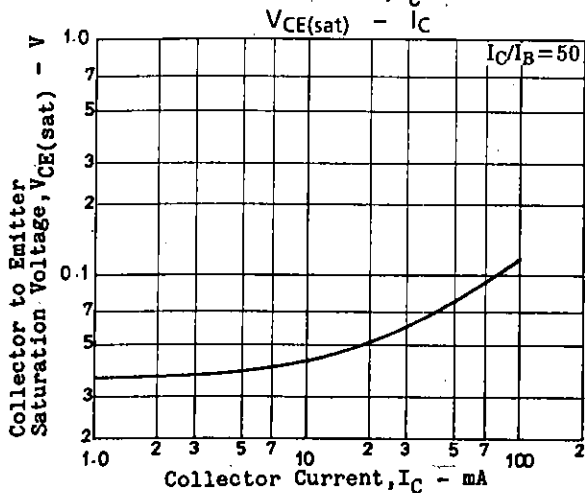
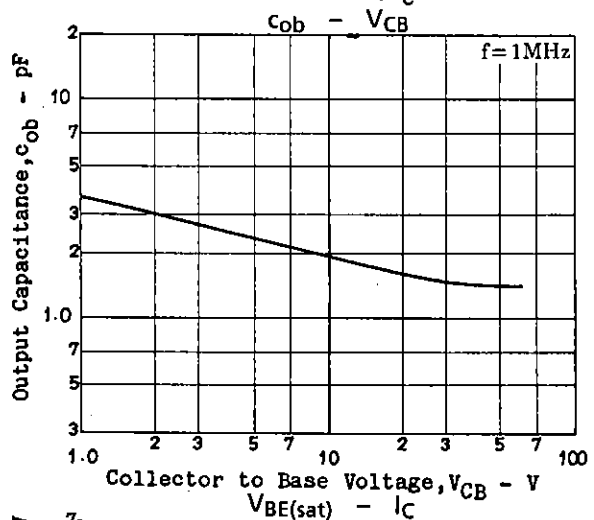
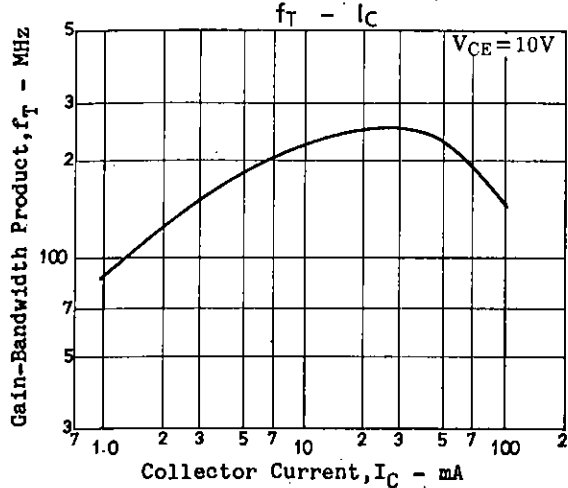
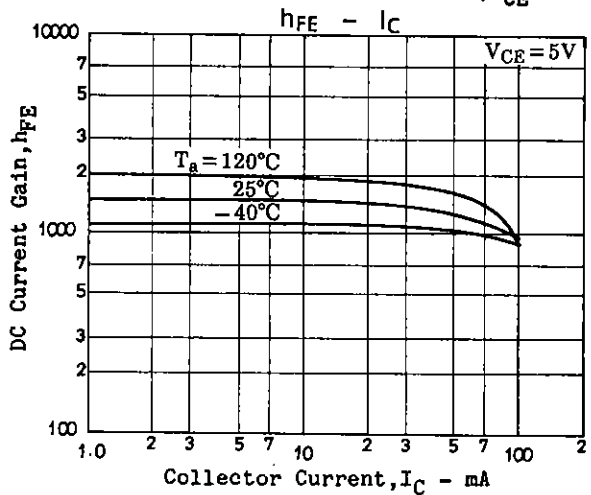
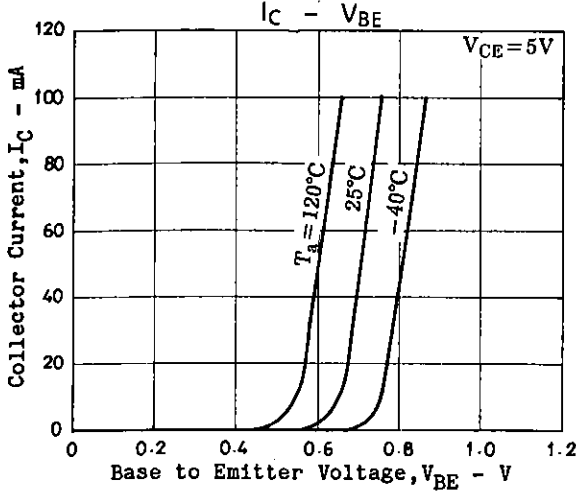
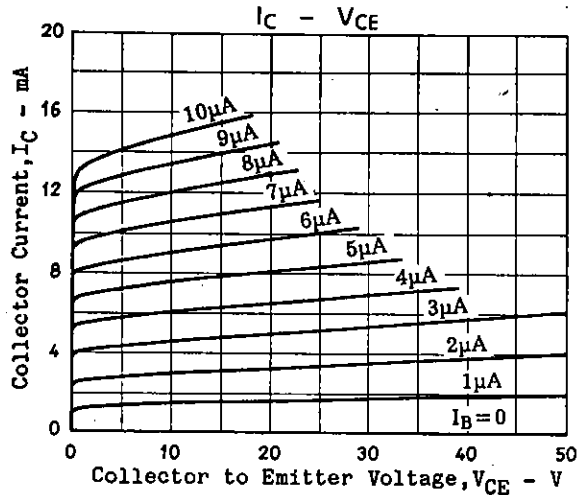
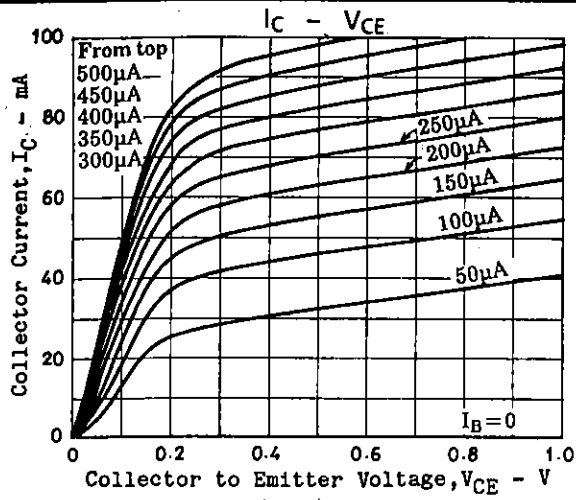
Electrical Characteristics at $T_a = 25^\circ C$

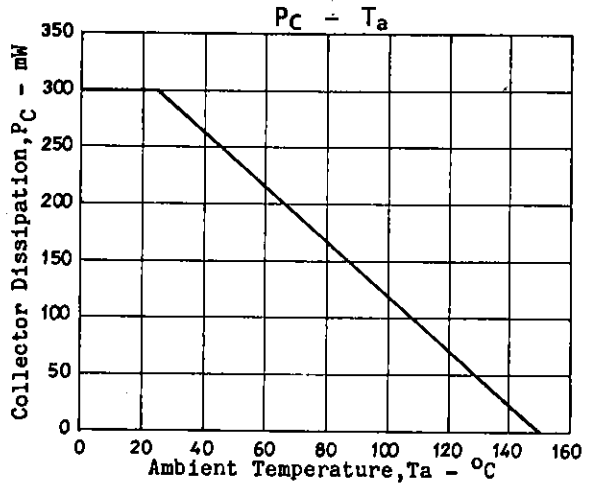
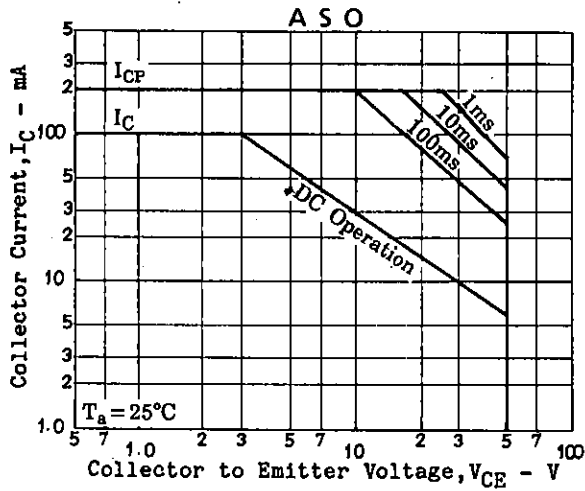
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 10V, I_C = 0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 10mA$	800	1500	3200	
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 10mA$		200		MHz
Output Capacitance	c_{ob}	$V_{CB} = 10V, f = 1MHz$		2.0		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 50mA, I_B = 1mA$		0.1	-0.5	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 50mA, I_B = 1mA$		0.8	1.1	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	50			V
E-B Breakdown Voltage	$V_{(BR)CBO}$	$I_E = 10\mu A, I_C = 0$	15			V

Package Dimensions 2033
(unit: mm)



B: Base
 C: Collector
 E: Emitter
 SANYO: SPA





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