

SANYO

No.1780A

2SC3650

NPN Epitaxial Planar Silicon Transistor

High h_{FE} , Low-Frequency

General-Purpose Amp Applications

Applications

- . LF amp, various drivers, muting circuit

Features

- . High DC current gain ($h_{FE}=800$ to 3200)
- . Low collector-to-emitter saturation voltage [$V_{CE(sat)} \leq 0.5V$]
- . Large current capacity ($I_C=1.2V$)
- . Very small size making it easy to provide high-density, small-sized hybrid IC's.

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

			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	1.2	A
Collector Current(Pulse)	I_{CP}	2	A
Collector Dissipation	P_C	500	mW
	P_C^*	1.5	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

* Mounted on ceramic board (250mm²x0.8mm)

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

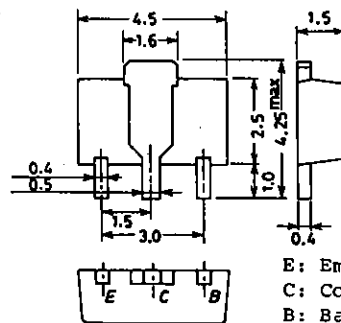
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=10V, I_C=0$			0.1	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=5V, I_C=500mA$	800	1500	3200	
	$h_{FE}(2)$	$V_{CE}=5V, I_C=10mA$	600			
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$		220		MHz
Output Capacitance	c_{ob}	$V_{CB}=10V, f=1MHz$		17		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=10mA$	0.12	0.5		V

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Marking : CF

Package Dimensions 2038

(unit:mm)



E: Emitter
C: Collector
B: Base

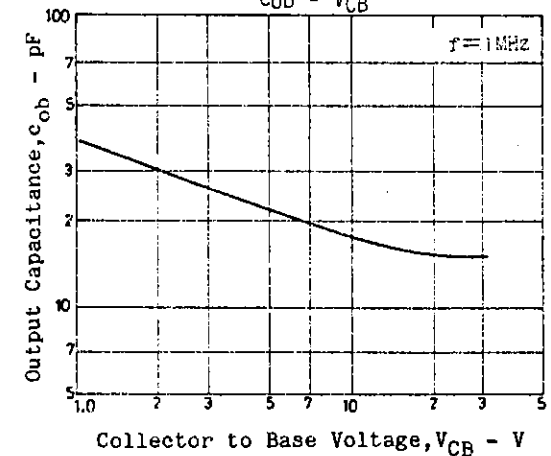
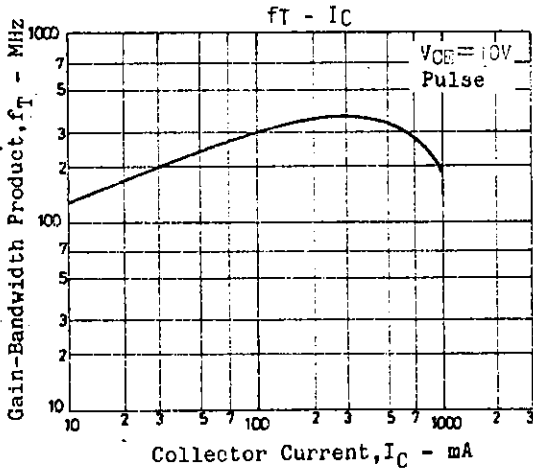
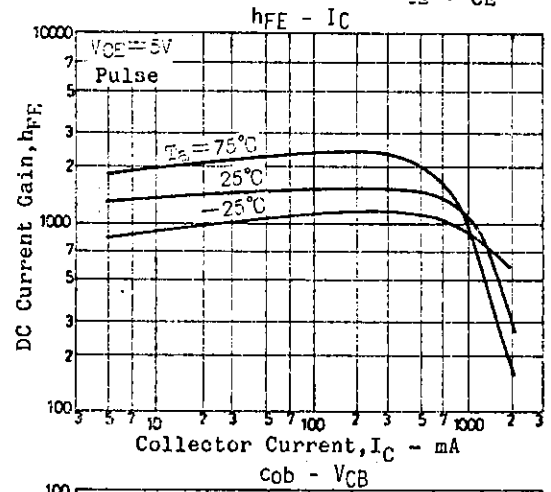
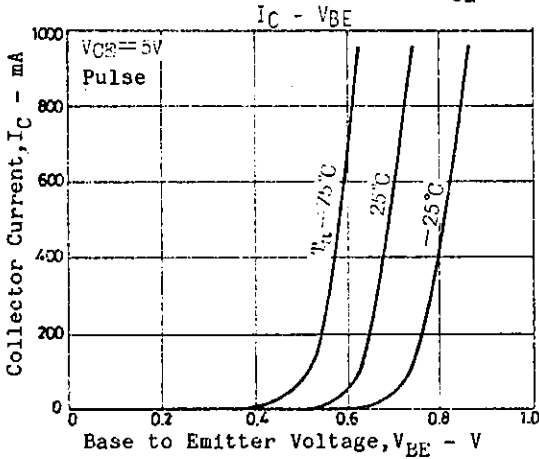
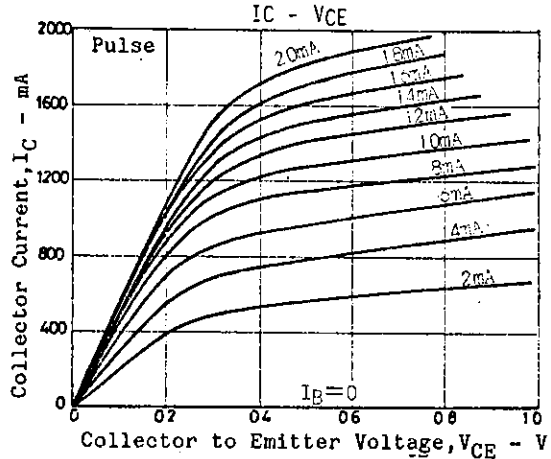
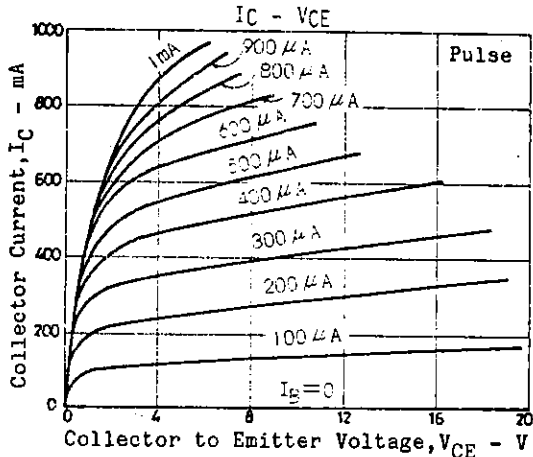
SANYO: PCP
(Bottom View)

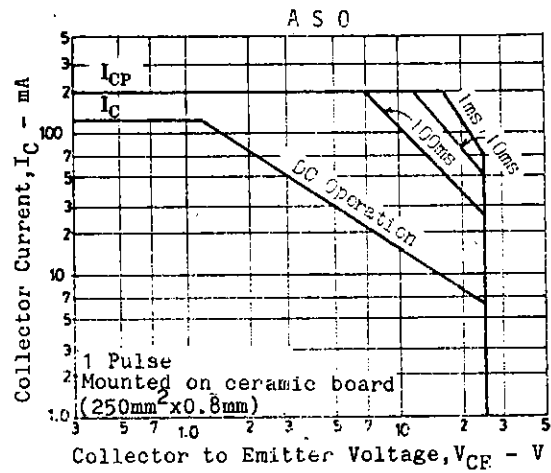
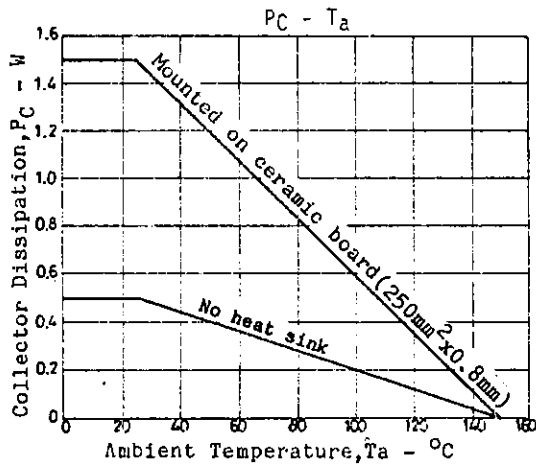
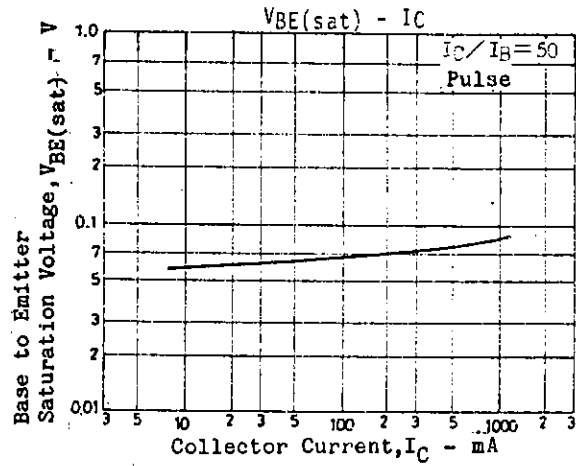
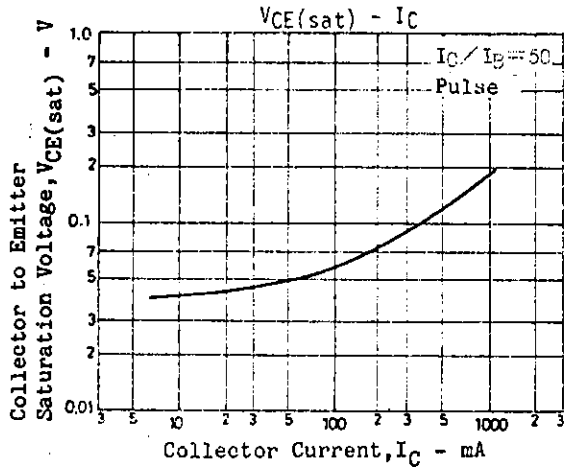
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			min	typ	max	unit
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_E=10mA$		0.85	1.2	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	30			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	25			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	15			V





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