

SANYO

No.3975

2SC4736

NPN Epitaxial Planar Silicon Transistor

High h_{FE} , Low-Frequency General-Purpose
Amp Applications

Features

- Large current ($I_C = 2A$).
- Adoption of MBIT process.
- High DC current gain ($h_{FE} = 800$ to 3200).
- Low collector-to-emitter saturation voltage ($V_{CE(sat)} \leq 0.5V$).
- High Emitter to Base Voltage ($V_{EBO} \geq 15V$).
- Large power type such as $P_C = 1.5W$ when used without heatsink.
- It is possible to make appliances more compact because its height on board is 9.5mm.
- Effective in automatic inserting and counting stocked amount because of being provided for radial tapping.

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

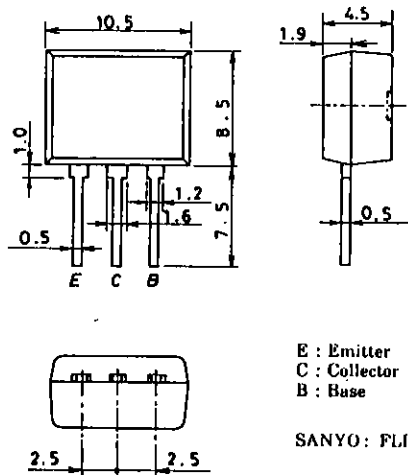
			unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	15	V
Collector Current	I_C	2	A
Peak Collector Current	i_{cp}	4	A
Base Current	I_B	400	mA
Collector Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

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

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 50V, I_E = 0$			1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 10V, I_C = 0$			1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5V, I_C = 500mA$	800	1500	3200	
	$h_{FE(2)}$	$V_{CE} = 5V, I_C = 1A$	600			
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 50mA$		170		MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$		24		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 20mA$	0.2	0.5		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 20mA$	0.87	1.2		V

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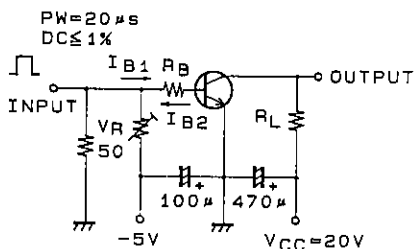
Package Dimensions 2084
(unit: mm)



E : Emitter
C : Collector
B : Base

SANYO: FLIP

Switching Time Test Circuit



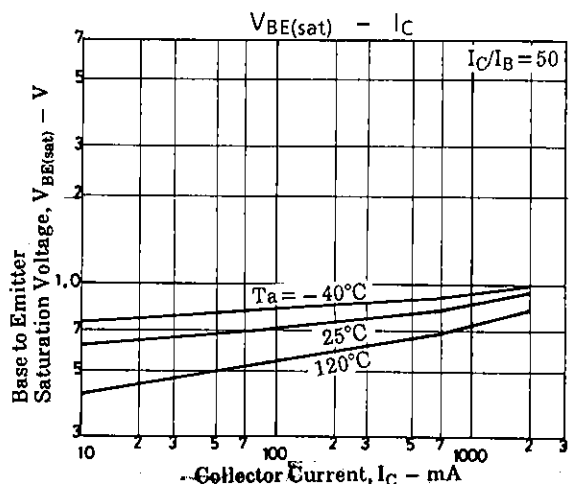
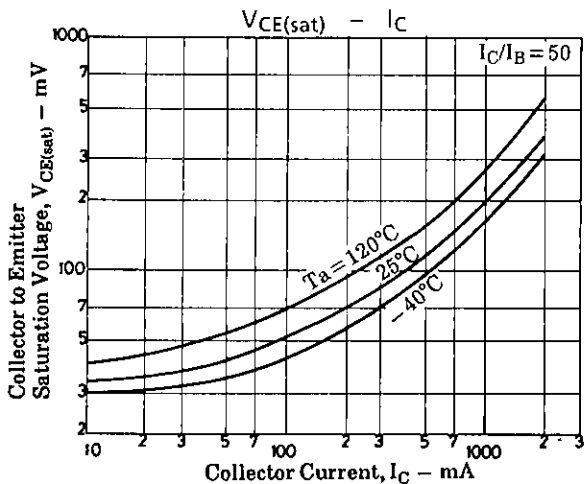
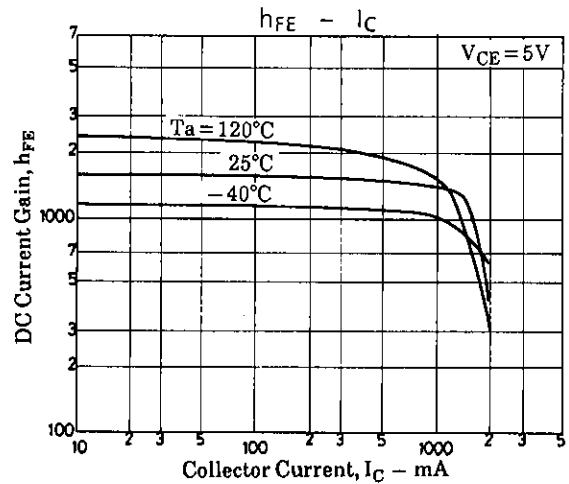
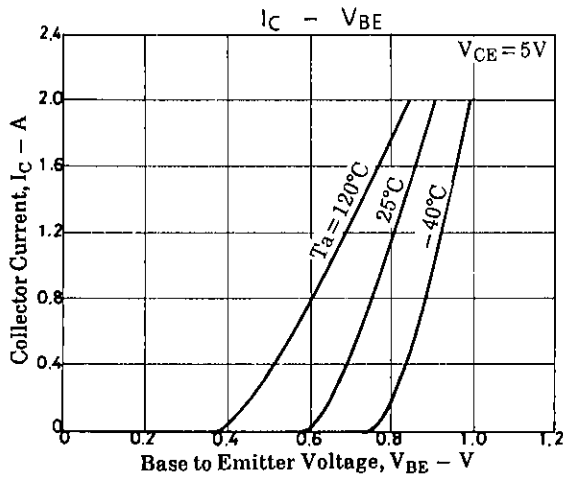
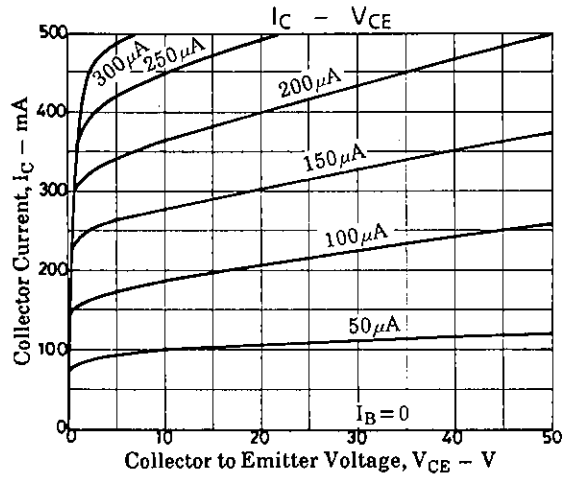
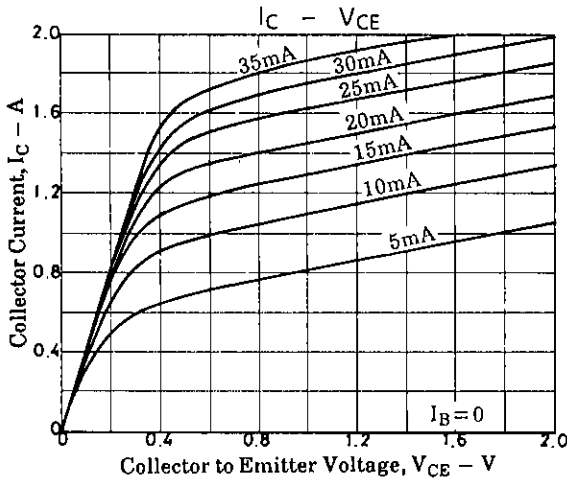
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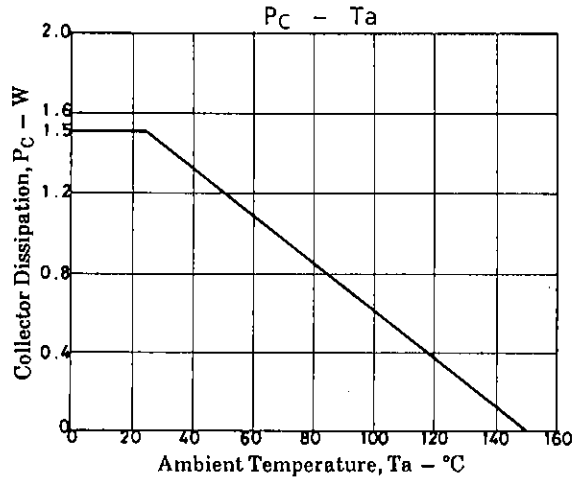
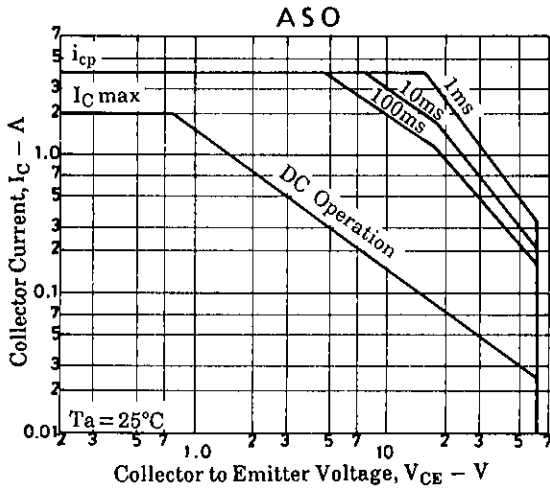
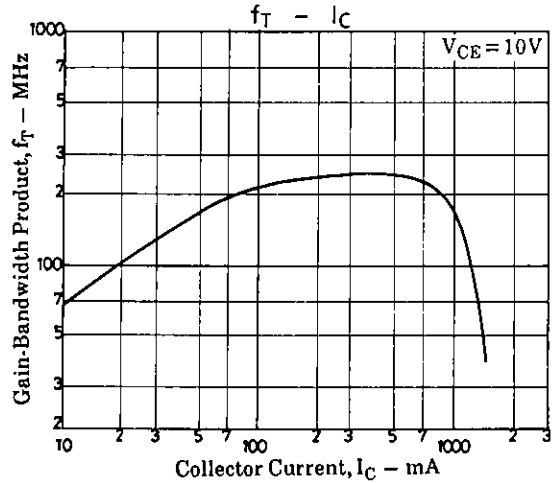
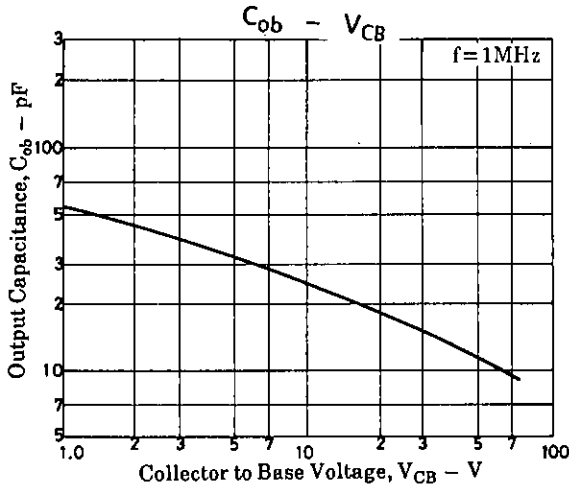
$100I_{B1} = -100I_{B2} = I_C = 700mA$

Unit (resistance: Ω , capacitance: F)

Continued from preceding page.

			min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_C = 10\mu A, I_C = 0$	15			V
Turn-ON Time	t_{on}	See specified Test Circuit.		0.23		μs
Storage Time	t_{stg}	"		2.7		μs
Fall Time	t_f	"		0.75		μs





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