

SANYO	No.3180B	2SA1764
		PNP Epitaxial Planar Silicon Transistor High-Speed Switching Applications

Features

- Fast switching speed
- Low collector saturation voltage
- High gain-bandwidth product
- Small collector capacitance
- Small-sized package permitting the 2SA1764-applied sets to be made small and slim
- Complementary pair with the 2SC4453

Absolute Maximum Ratings at Ta = 25°C

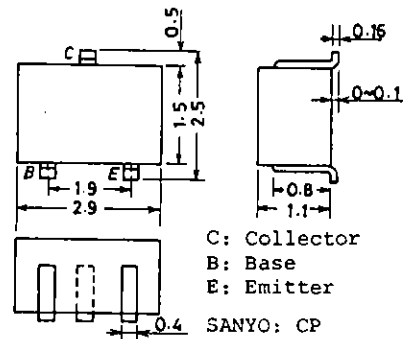
			unit
Collector to Base Voltage	V_{CB0}	-15	V
Collector to Emitter Voltage	V_{CEO}	-15	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-200	mA
Collector Current(Pulse)	I_{CP}	-500	mA
Base Current	I_B	-40	mA
Collector Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

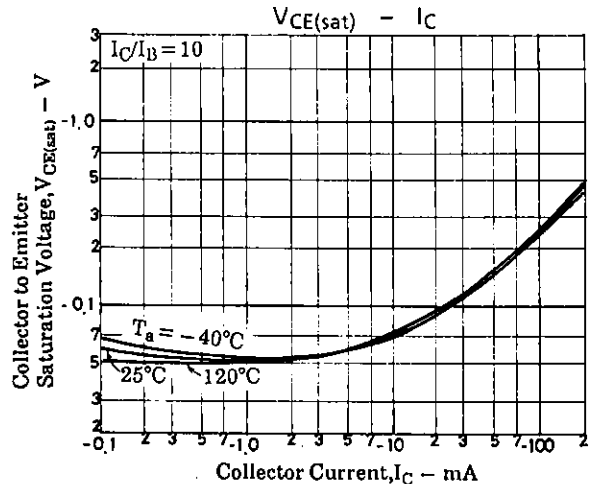
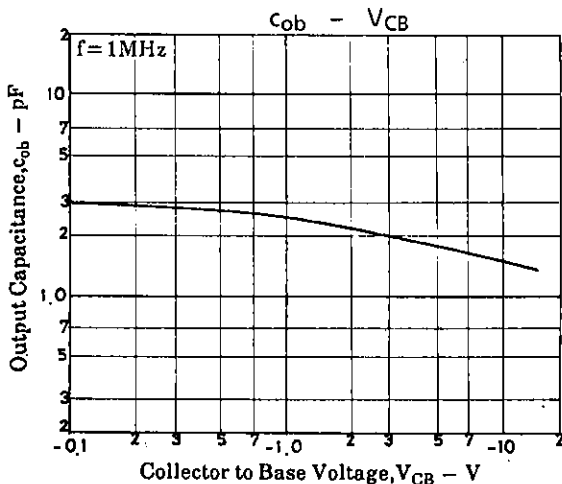
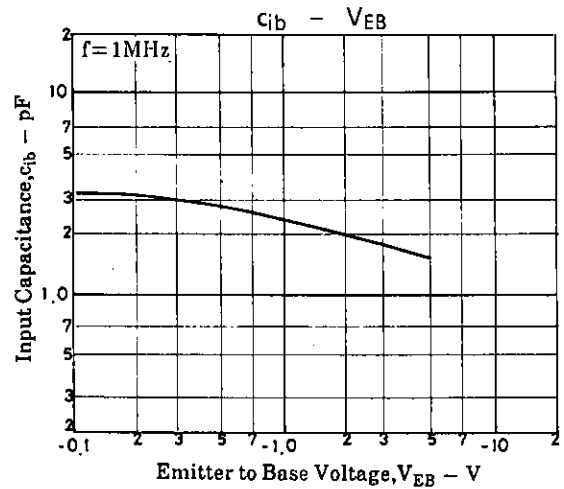
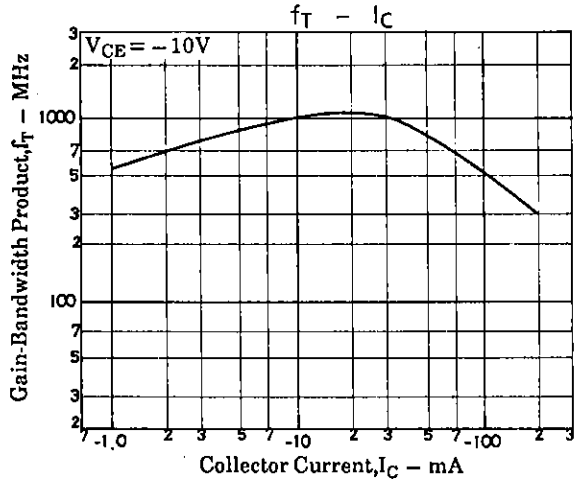
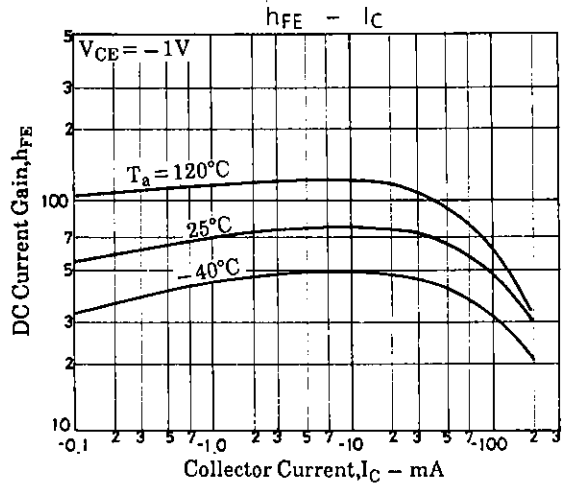
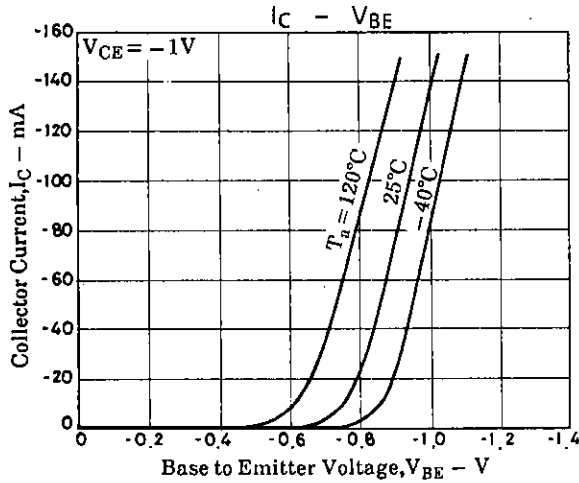
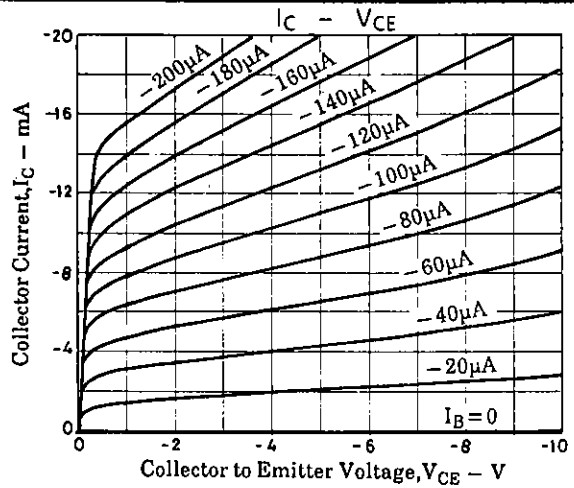
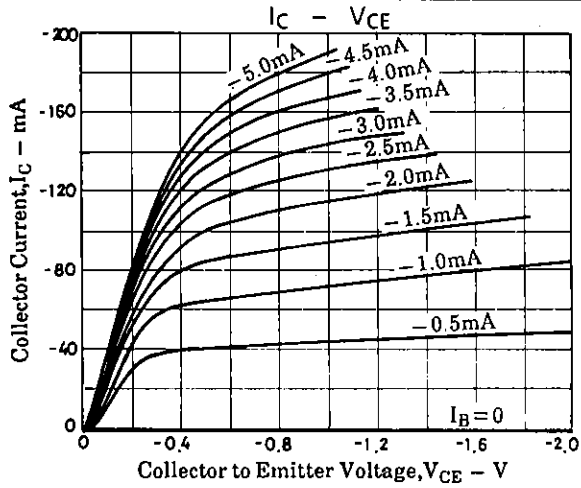
Electrical Characteristics at Ta = 25°C

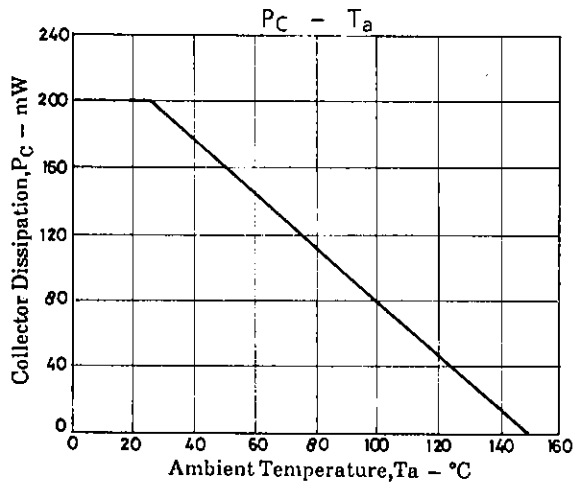
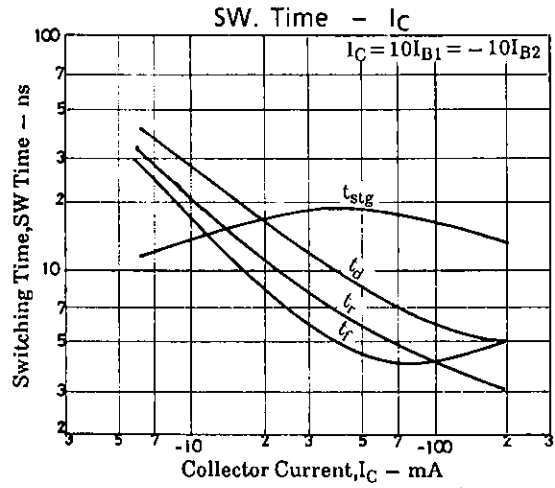
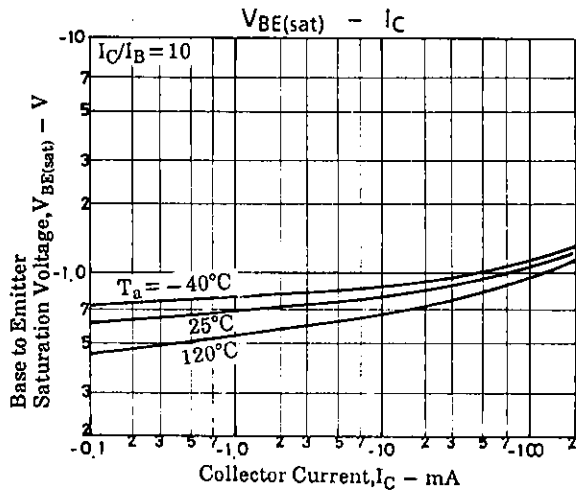
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = -8V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -1V, I_C = -10mA$	50	80	140	
Gain-Bandwidth Product	f_T	$V_{CE} = -10V, I_C = -10mA$	450	1000		MHz
Output Capacitance	c_{ob}	$V_{CB} = -5V, f = 1MHz$		1.8	3.0	pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$	-0.07	-0.20		V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = -10mA, I_B = -1mA$	-0.80	-0.90		V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-15			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-15			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Turn-ON Time	t_{on}	See specified Test Circuit.		11		ns
Storage Time	t_{stg}	"		21		ns
Turn-OFF Time	t_{off}	"		19		ns

Marking : FS

Package Dimensions 2018A
(unit : mm)

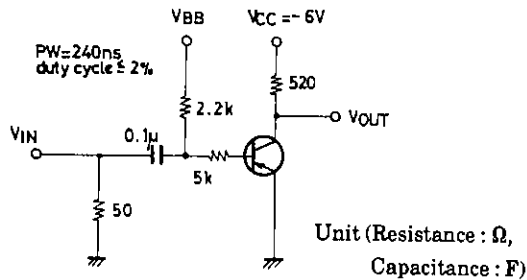




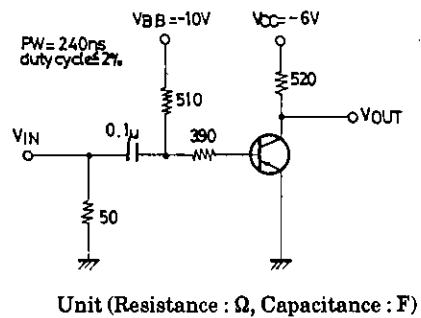


Switching Time Test Circuits

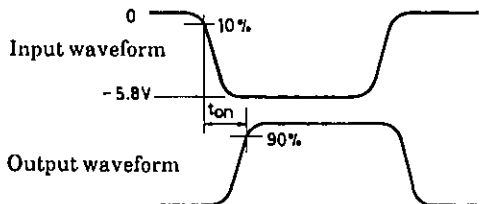
t_{on}, t_{off} Test Circuit



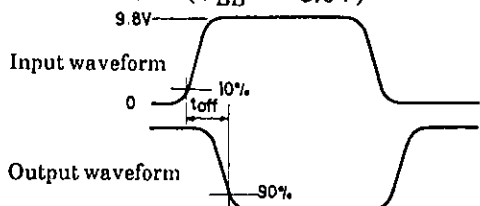
t_{stg} Test Circuit



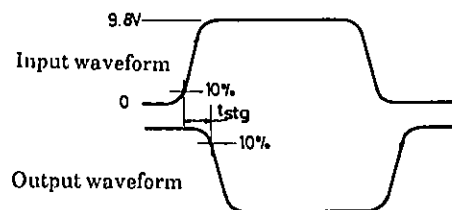
t_{on} Test Waveform ($V_{BB} = GND$)



t_{off} Test Waveform ($V_{BB} = -8.0V$)



t_{stg} Test Waveform



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