

SANYO

No.677D

2SB816/2SD1046Silicon PNP/NPN Planar Type Transistor
FOR LF POWER AMP, 50W OUTPUT,
LARGE POWER SWITCHING**Features**

- Capable of being mounted easily because of one-point fixing type plastic molded package (Interchangeable with TO-3)
- Wide ASO because of built-in ballast resistance
- Good dependence of f_T on current and good HF characteristic

(): 2SB816

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

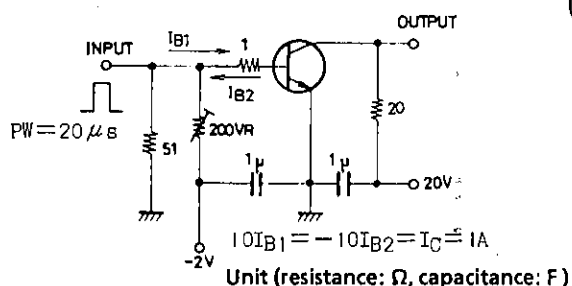
			unit
Collector-to-Base Voltage	V_{CB0}	(-)150	V
Collector-to-Emitter Voltage	V_{CE0}	(-)120	V
Emitter-to-Base Voltage	V_{EB0}	(-)6	V
Collector Current	I_C	(-)8	A
Peak Collector Current	i_{cp}	(-)12	A
Collector Dissipation	P_C	80	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

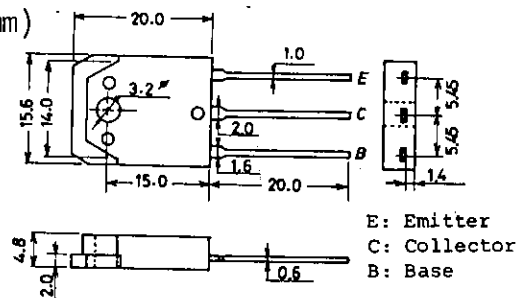
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)80\text{V}, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)0.1	mA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=(-)5\text{V}, I_C=(-)1\text{A}$	60*		200*	
	$h_{FE}(2)$	$V_{CE}=(-)5\text{V}, I_C=(-)5\text{A}$	20			
Gain Bandwidth Product	f_T	$V_{CE}=(-)5\text{V}, I_C=(-)1\text{A}$		15		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(220)		pF
				160		
Base to Emitter Voltage	V_{BE}	$V_{CE}=(-)5\text{V}, I_C=(-)1\text{A}$			1.5	V
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)5\text{A}, I_B=(-)0.5\text{A}$		1.0	2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)5\text{mA}, I_E=0$	(-)150			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)5\text{mA}, R_{BE}=\infty$	(-)120			V
		$I_C=(-)50\text{mA}, R_{BE}=\infty$	(-)120			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)5\text{mA}, I_C=0$	(-)6			V
Turn-on Time	t_{on}	At specified	(0.22)	0.22		μs
Fall Time	t_f	test circuit	(0.37)	1.02		μs
Storage Time	t_{stg}		(0.93)	6.66		μs

* The 2SB816/2SD1046 are classified by 1A h_{FE} as follows:

60	D	120	100	E	200
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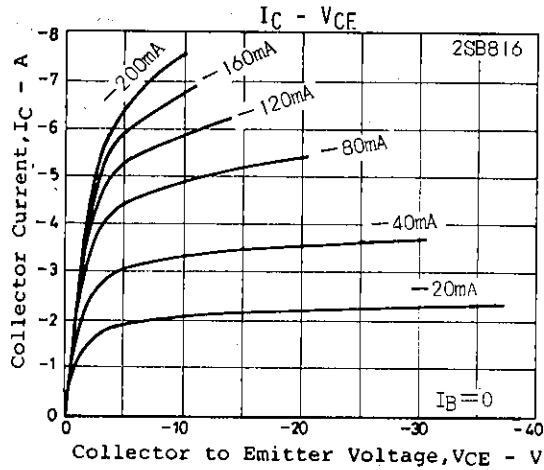
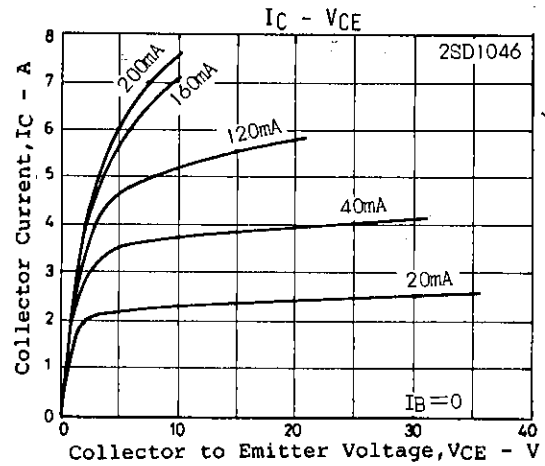
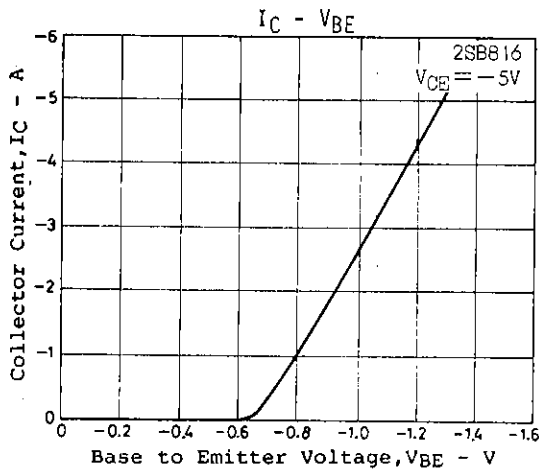
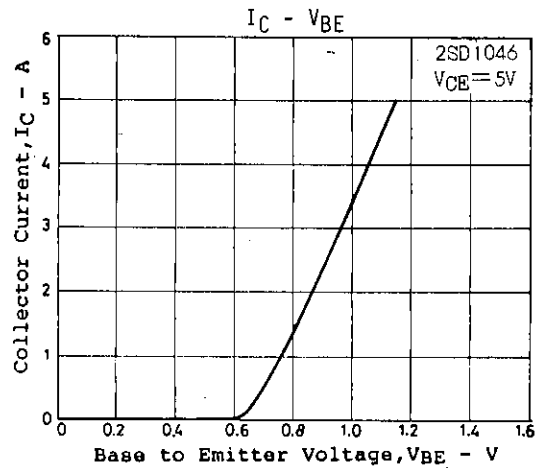
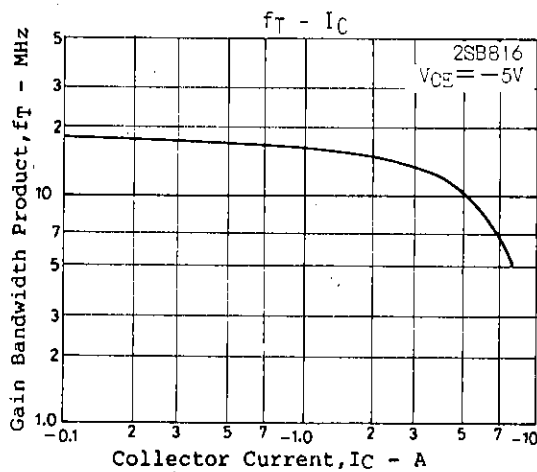
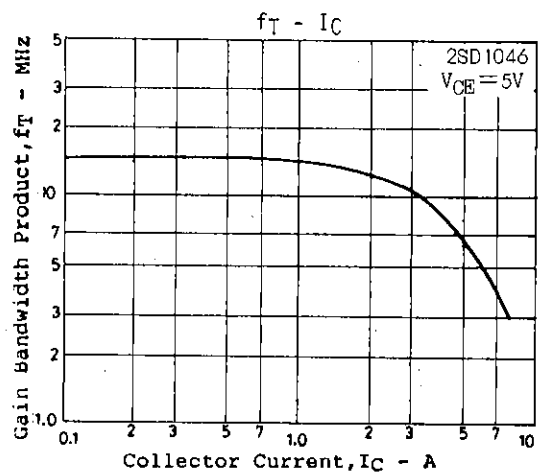
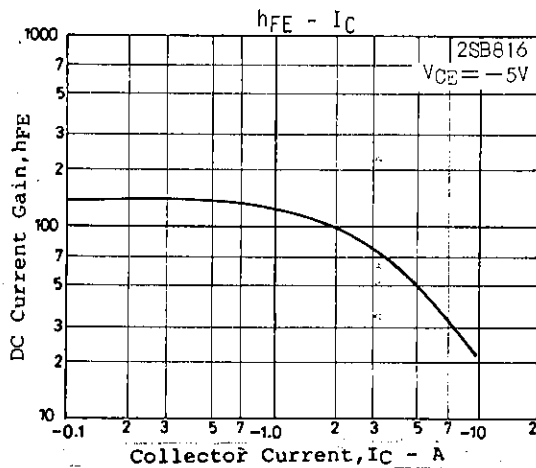
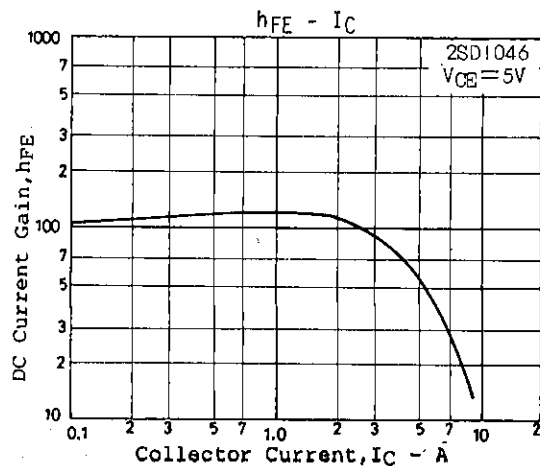
Switching Time Test Circuit**Package Dimensions 2022**

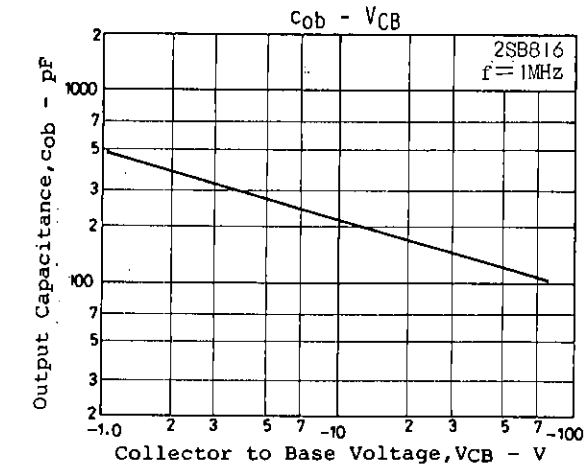
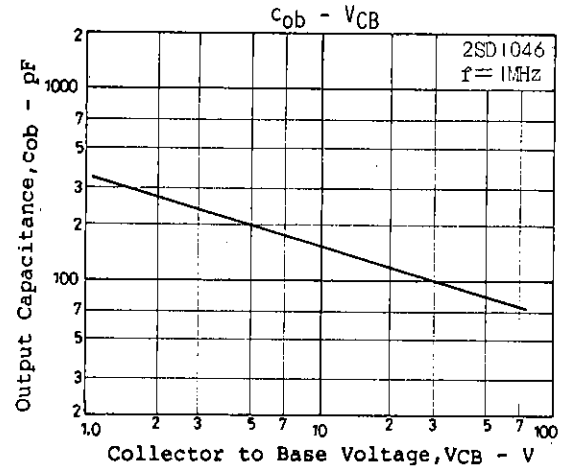
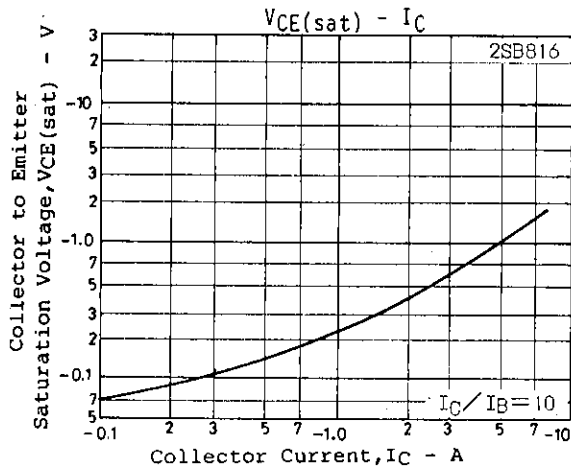
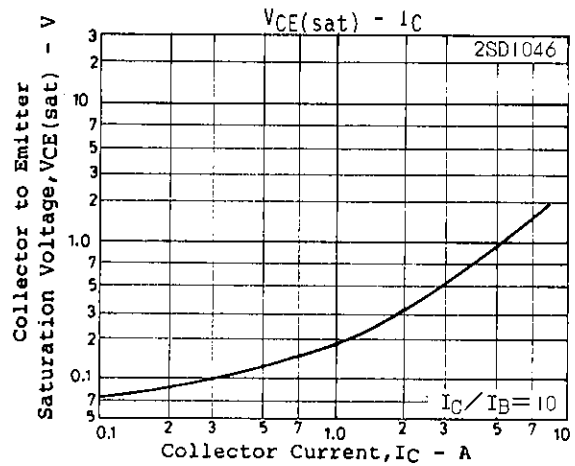
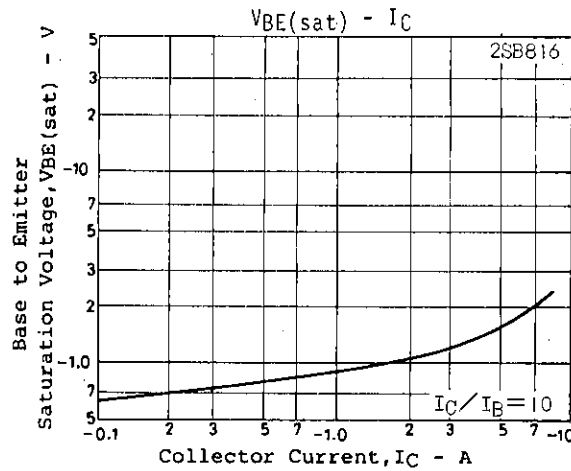
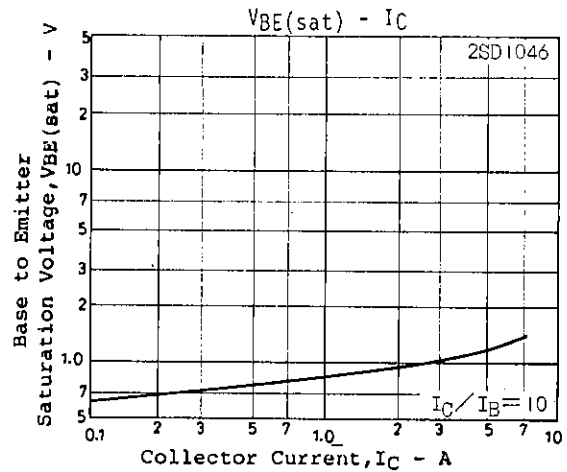
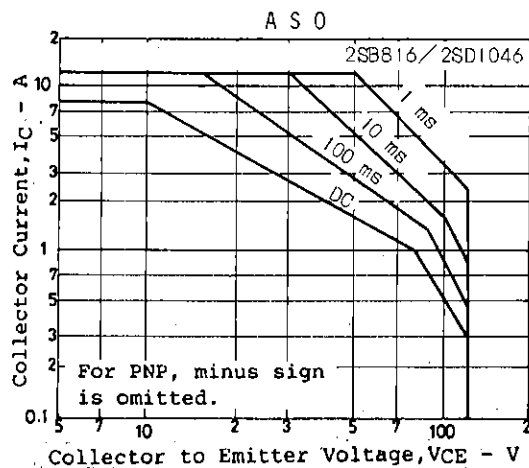
(unit:mm)



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