Ordering number:EN4919

FP216

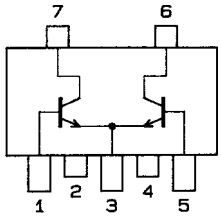
NPN Epitaxial Planar Silicon Transistor

LCD Backlight Drive Applications

Features

- Composite type with 2 transistors contained in the PCP5 package currently in use, improving the mounting efficiency greatly.
- The FP216 is composed of two chips, each being equivalent to the 2SC3646, placed in one package.

Electrical Connection



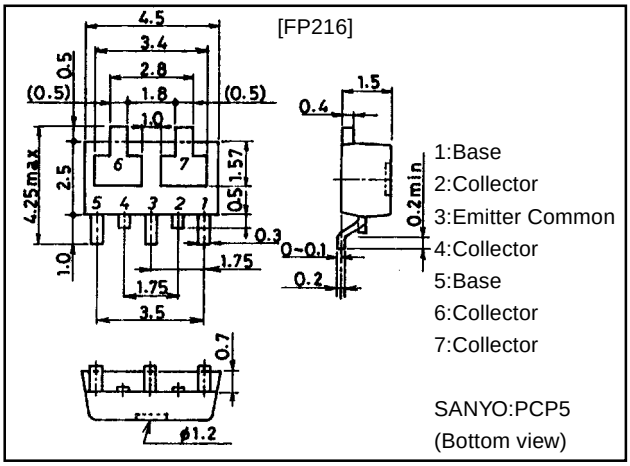
1:Base
2:Collector
3:Emitter Common
4:Collector
5:Base
6:Collector
7:Collector

(Top view)

Package Dimensions

unit:mm

2097B



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		120	V
Collector-to-Emitter Voltage	V_{CEO}		100	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		1	A
Collector Current (Pulse)	I_{CP}		2	A
Base Current	I_B		200	mA
Collector Dissipation	P_C	Mounted on ceramic board (250mm²×0.8mm) 1 unit	0.8	W
Total Dissipation	P_T	Mounted on ceramic board (250mm²×0.8mm)	1.1	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta=25˚C

Parameter	Symbol	Conditons	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=100V, I_E=0			100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			100	nA
DC Current Gain	h_{FE}	V_{CE}=5V, I_C=100mA	140		400	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=100mA		120		MHz
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		8.5		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=400mA, I_B=40mA		100	400	mV
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=400mA, I_B=40mA		0.85	1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=10μA, I_E=0	120			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA, R_{BE}=∞	100			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6			V
Turn-ON Time	t_{on}	See specified Test Circuit		80		ns
Storage Time	t_{stg}	See specified Test Circuit		850		ns
Fall Time	t_f	See specified Test Circuit		50		ns

Marking:216

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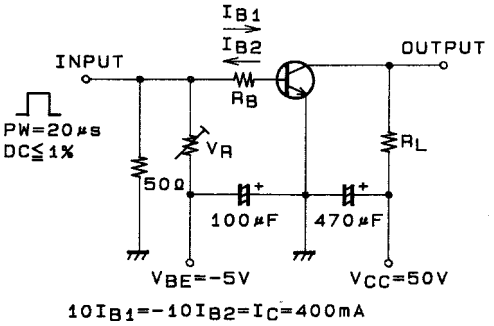
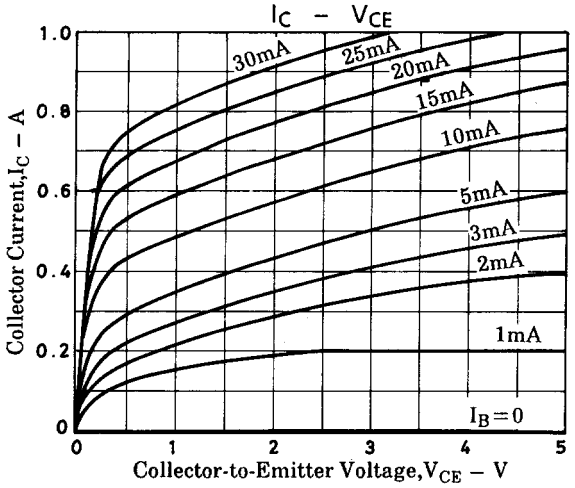
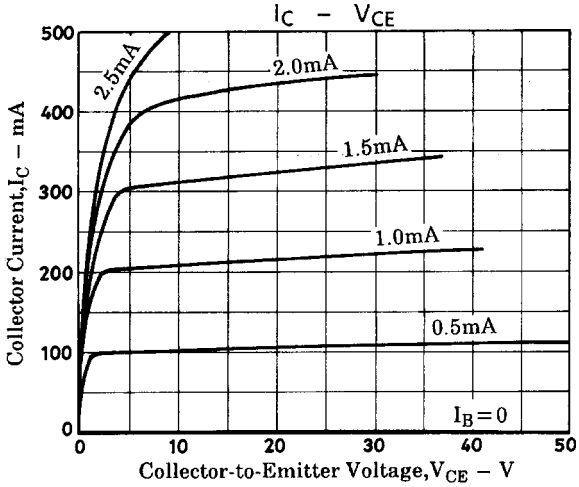
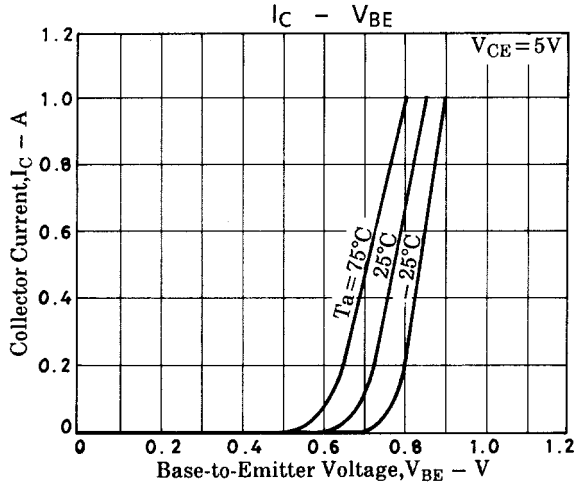
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

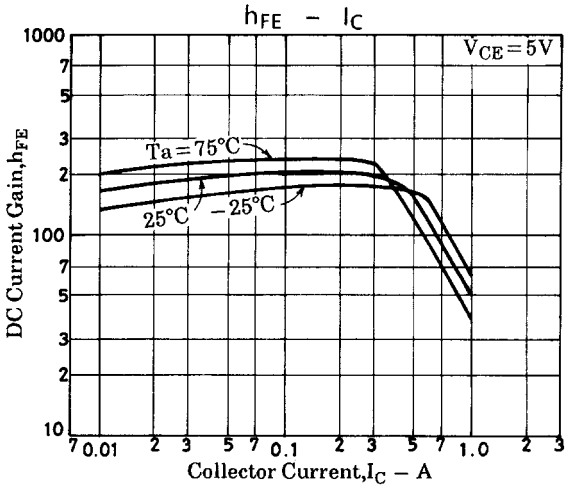
Switching Time Test Circuit

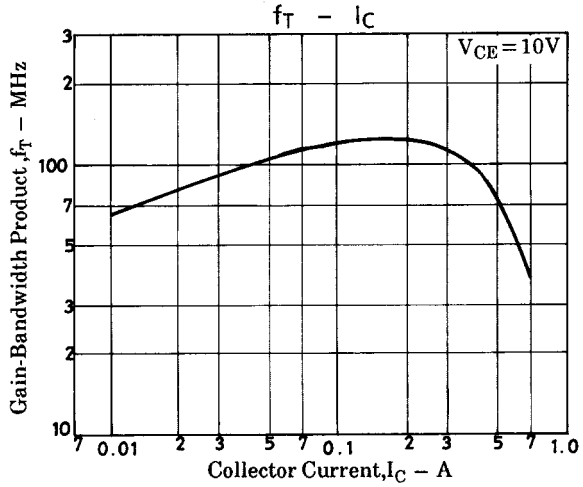


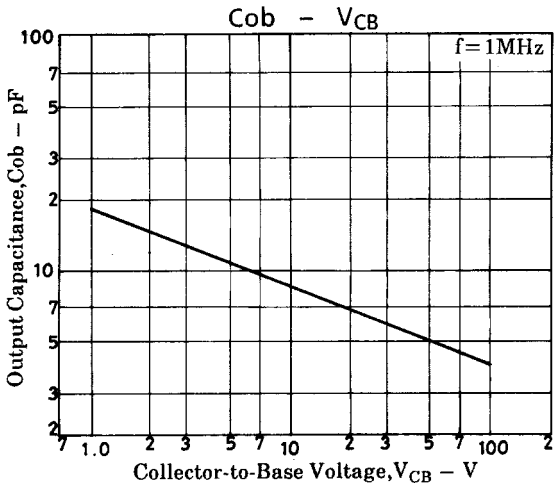




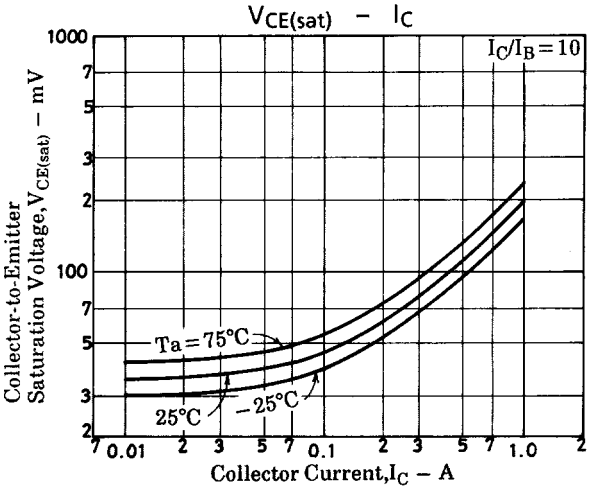




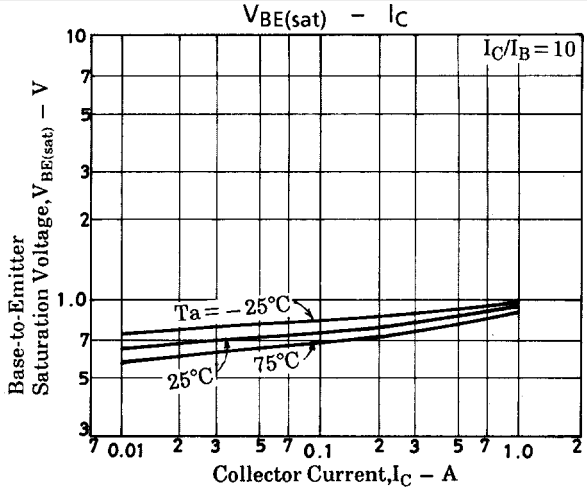




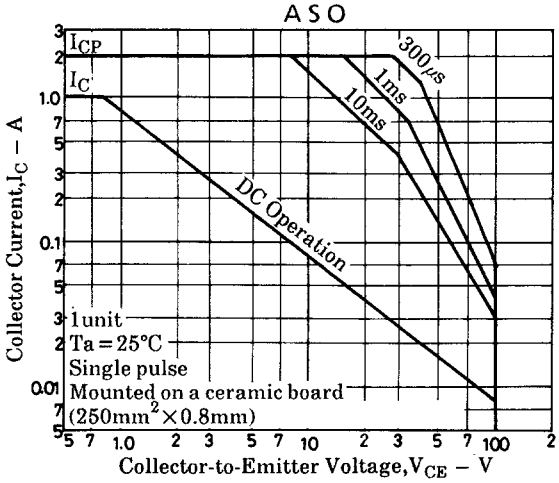
$V_{CE(sat)}$ – I_C



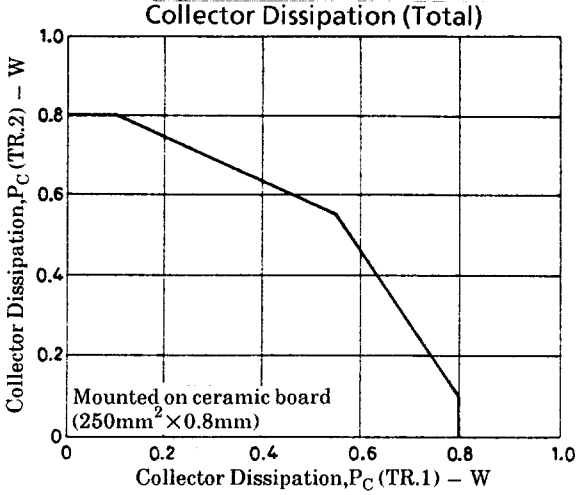
$V_{BE(sat)}$ – I_C



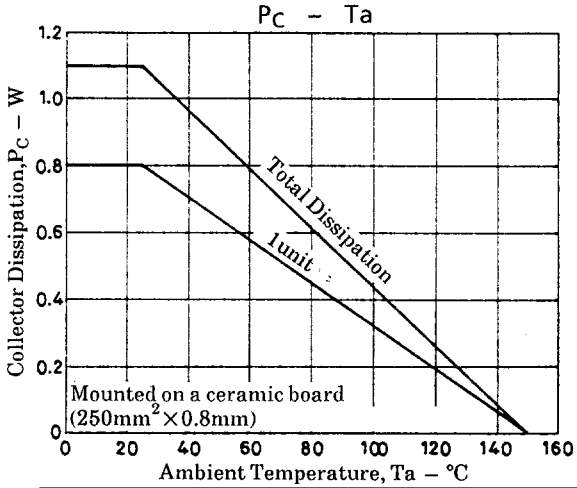
ASO



Collector Dissipation (Total)



P_C – Ta



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