

Ordering number:EN4919



# FP216

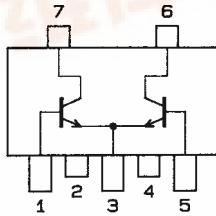
NPN Epitaxial Planar Silicon Transistor

## 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



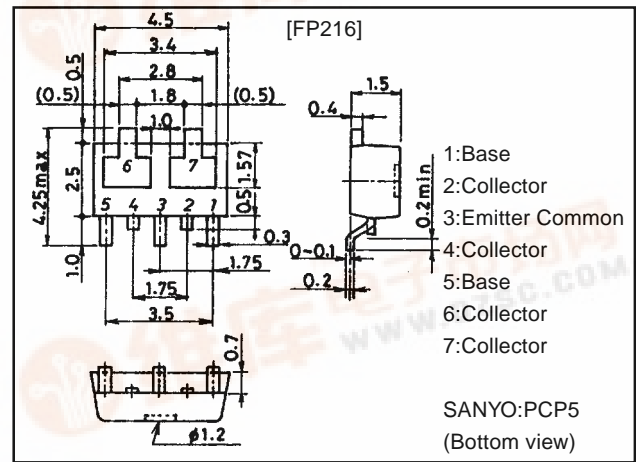
- 1:Base
- 2:Collector
- 3:Emitter Common
- 4:Collector
- 5:Base
- 6:Collector
- 7:Collector

(Top view)

### Package Dimensions

unit:mm

2097B



### Specifications

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CB0}$		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 (250mm <sup>2</sup> ×0.8mm) 1 unit	0.8	W
Total Dissipation	$P_T$	Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm)	1.1	W
Junction Temperature	$T_J$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

#### Electrical Characteristics at Ta=25°C

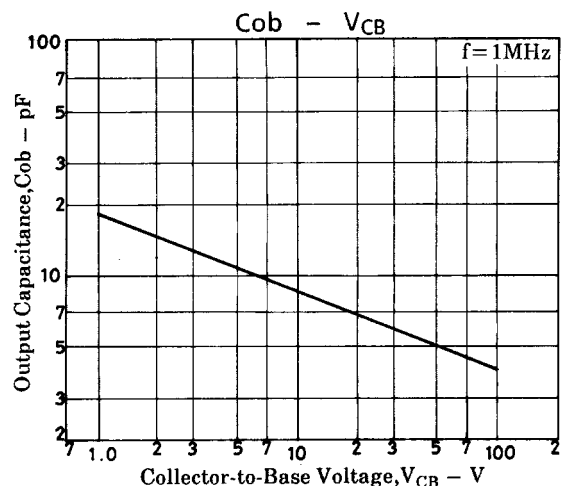
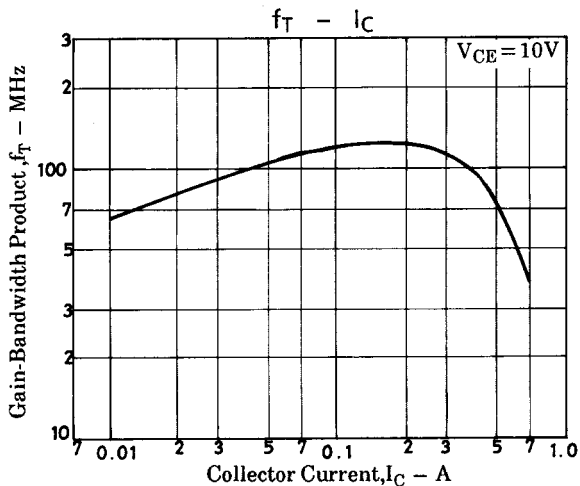
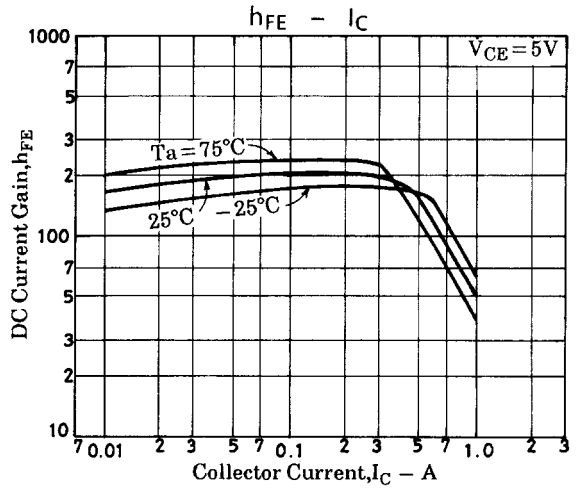
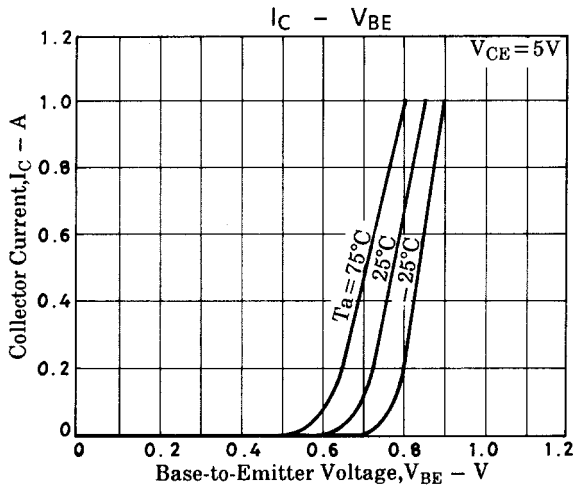
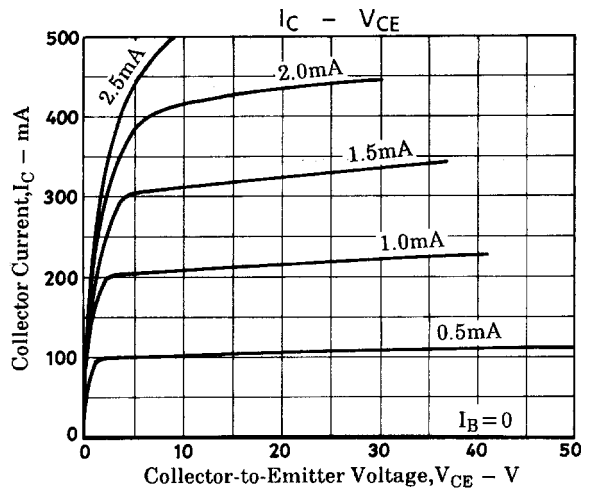
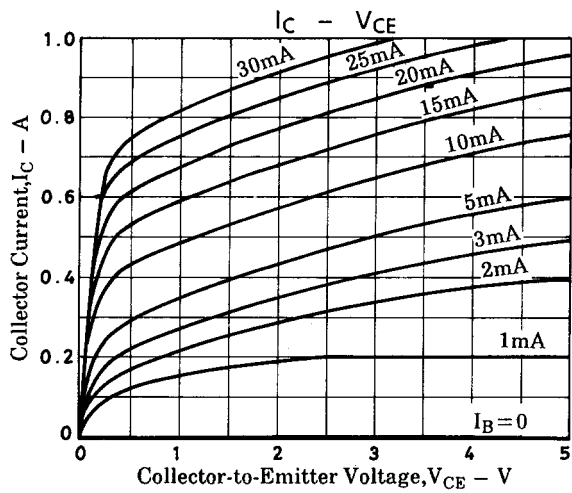
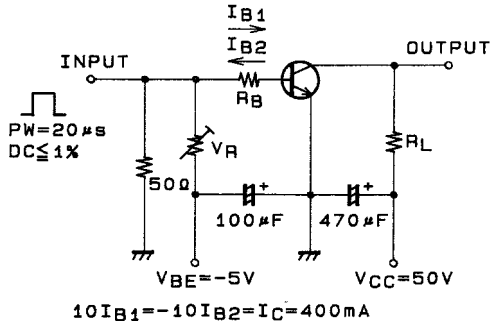
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			100	nA
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=100mA$	140		400	
Gain-Bandwidth Product	$f_T$	$V_{CE}=10V, I_C=100mA$		120		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V, f=1MHz$		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	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	120			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	100			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	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

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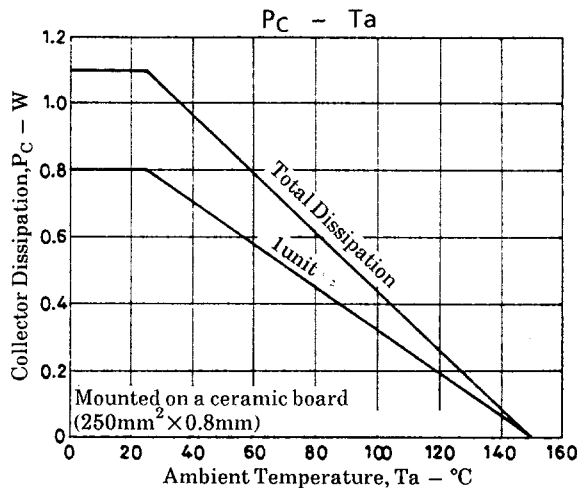
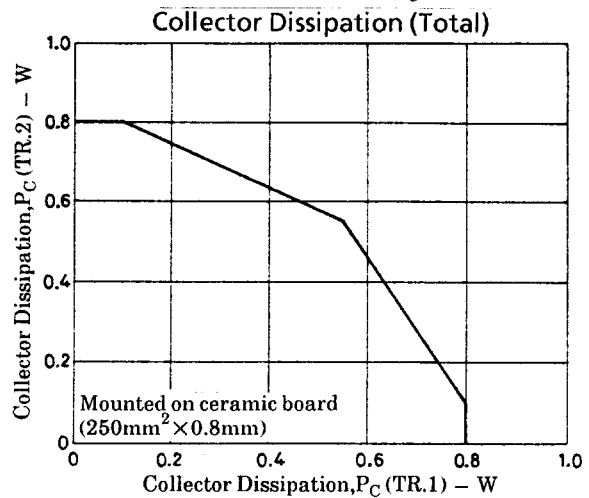
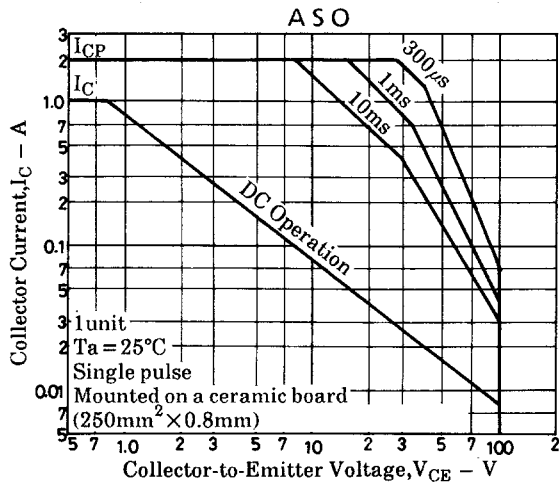
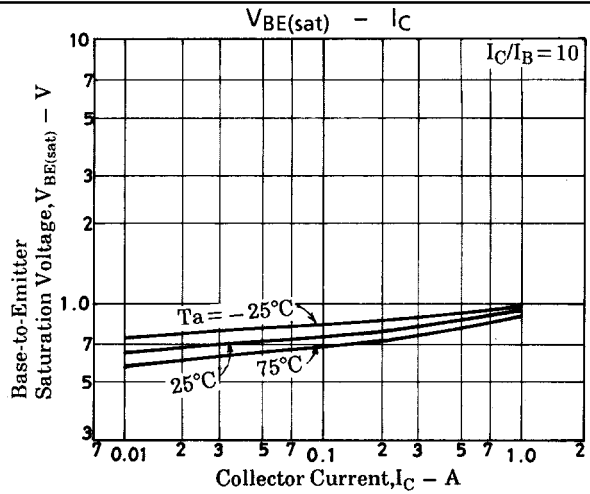
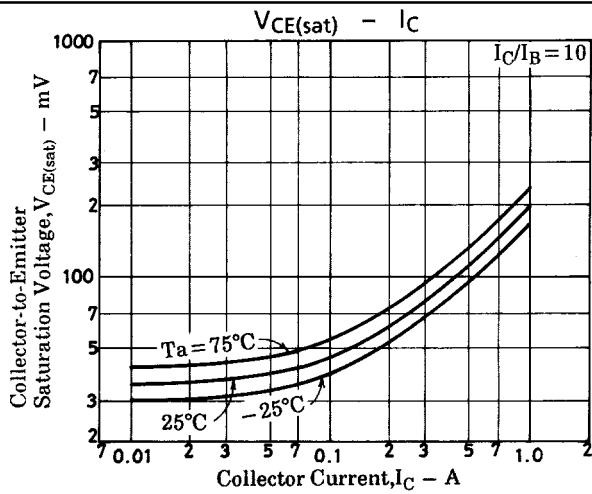


# FP216

## Switching Time Test Circuit



# FP216



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