Ordering number:EN4906

FX508

NPN Epitaxial Planar Silicon Transistor

High-Current Switching Applications

Applications

· LCD backlight drive.

Features

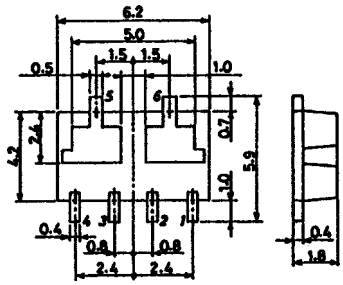
· Composite type with 2PNP transistors contained in one package, facilitating high-density mounting.
· The FX508 houses two chips, each being equivalent to the 2SD1815, in one package.
· Matched pair characteristics.

Package Dimensions

unit:mm

2118

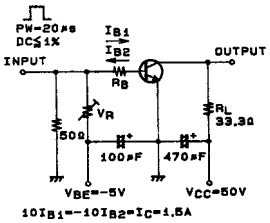
[FX508]



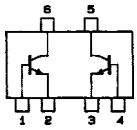
1:Base1
2:Emitter1
3:Emitter2
4:Base2
5:Collector2
6:Collector1

SANYO:XP6
(Bottom view)

Swithing Time Test CIrcuit



Electrical Connection



1:Base1
2:Emitter1
3:Emitter2
4:Base2
5:Collector2
6:Collector1

(Top view)

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		3	A
Collector Current (Pulse)	I_{CP}		6	A
Base Current	I_B		600	mA
Collector Dissipation	P_C	Mounted on ceramic board (750mm^2×0.8mm) 1unit	1.5	W
Total Dissipation	P_T	Mounted on ceramic board (750mm^2×0.8mm)	2	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

· Marking:508

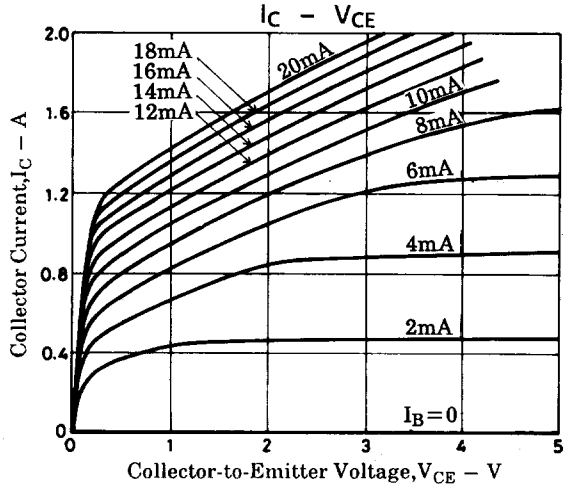
Continued on next page.

Continued from preceding page.

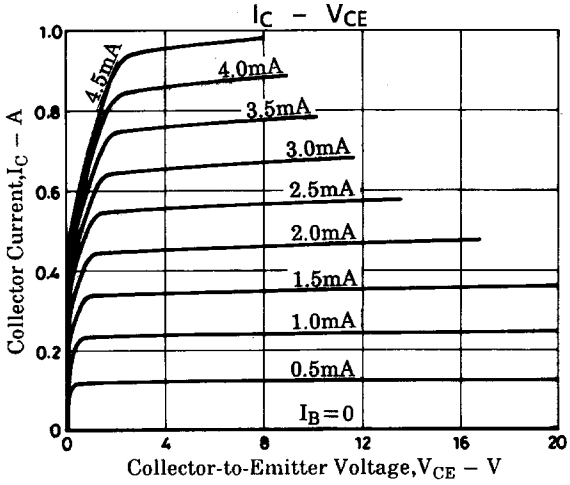
Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=100V, I_E=0			1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0			1	μA
DC Current Gain	$h_{FE}1$	V_{CE}=5V, I_C=500mA	140		400	
	$h_{FE}2$	V_{CE}=5V, I_C=2A	40			
DC Current Gain Ratio	$h_{FE(small/large)}$	V_{CE}=5V, I_C=500mA	0.8			
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=500mA		180		MHz
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		25		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=1.5A, I_B=150mA		150	400	mV
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=1.5A, I_B=150mA		0.9	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 sepcified Test Circuit		100		ns
Storage Time	t_{stg}	See sepcified Test Circuit		900		ns
Fall Time	t_f	See sepcified Test Circuit		50		ns

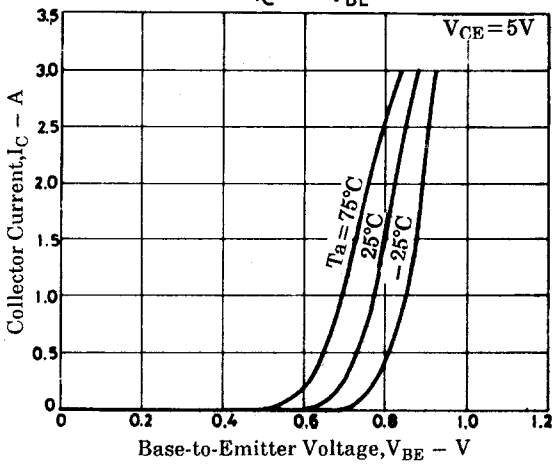
I_C – V_{CE}



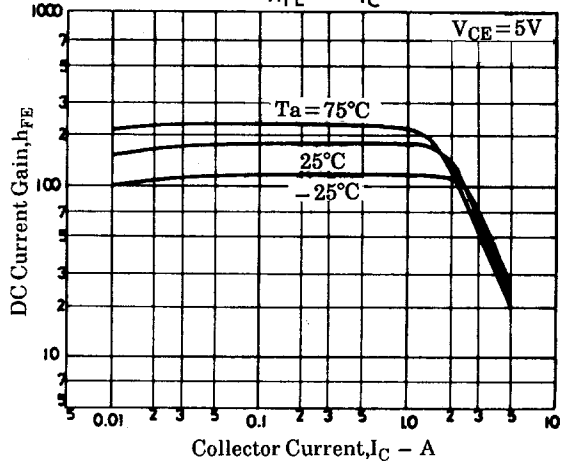
I_C – V_{CE}



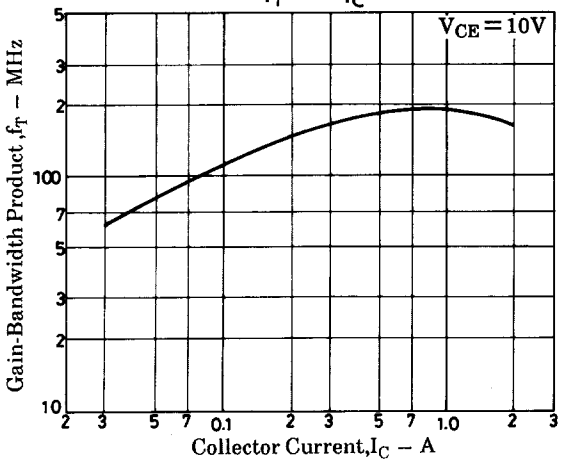
I_C – V_{BE}



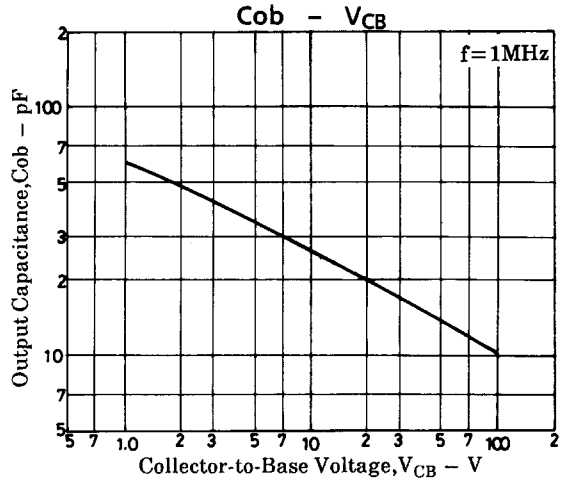
h_{FE} – I_C



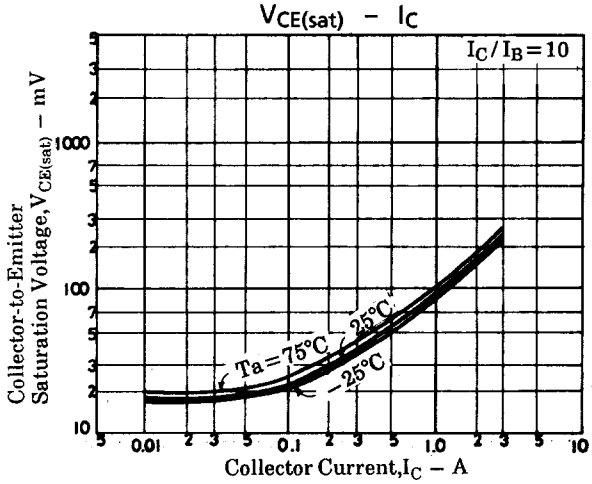
f_T – I_C



Cob – V_{CB}



$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C