Ordering number: EN 3160A

SANYO

No.3160A

2SC4504

NPN Epitaxial Planar Silicon Transistor

High-Definition CRT Display Video Output Driver Applications

Features

- High f_T (f_T=2.2GHz typ).
- Large current (I_C=300mA).
- Adoption of FBET process.

Absolute Maximum Ratings at Ta=25°C

				unit
Collector-to-Base Voltage	V_{CBO}		30	V
Collector-to-Emitter Voltage	V_{CEO}		20	V
Emitter-to-Base Voltage	V_{EBO}		3	V
Collector Current	I_C		300	mA
Collector Current (Pulse)	I_{CP}		600	mA
Collector Dissipation	P_C		0.5	W
	P_C	Mounted on ceramic board (250mm²×0.8mm)	1.3	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta=25°C

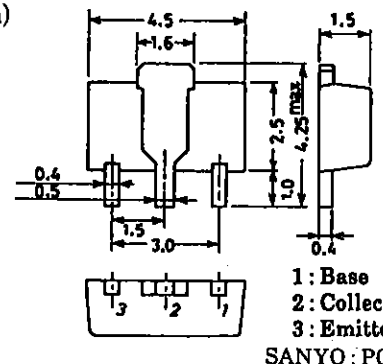
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=20V,I_E=0			0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=2V,I_C=0			5.0	μA
DC Current Gain	$h_{FE}(1)$	V_{CE}=5V,I_C=50mA	40※		200※	
	$h_{FE}(2)$	V_{CE}=5V,I_C=300mA	20			
Gain-Bandwidth Product	f_T	V_{CE}=5V,I_C=50mA		2.2		GHz
Output Capacitance	Cob	V_{CB}=10V, f=1MHz		2.9		pF
Reverse Transfer Capacitance	Cre	V_{CB}=10V, f=1MHz		2.6		pF
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=100mA,I_B=10mA		0.15	0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	I_C=100mA,I_B=10mA		0.9	1.2	V

※ : The 2SC4504 is classified by 50mA h_{FE} as follows :

40 C 80	60 D 120	100 E 200

Marking : CM
h_{FE} rank : C, D, E

Package Dimensions 2038A
(unit : mm)



1 : Base
2 : Collector
3 : Emitter
SANYO : PCP
(Bottom View)

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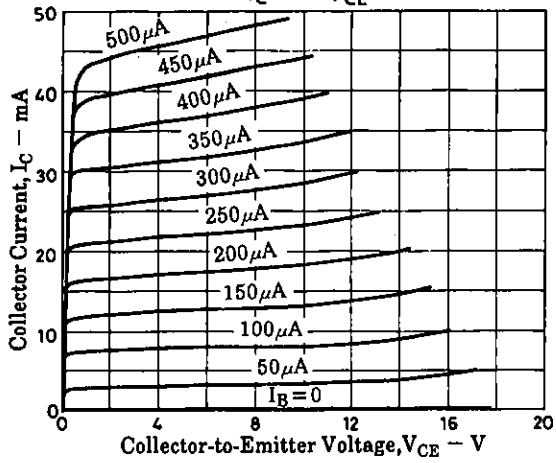
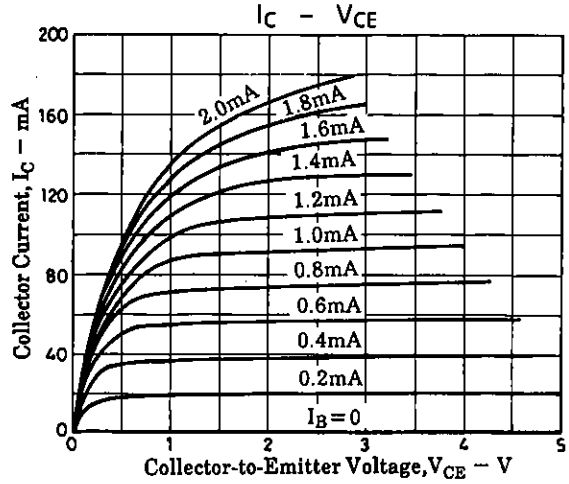
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

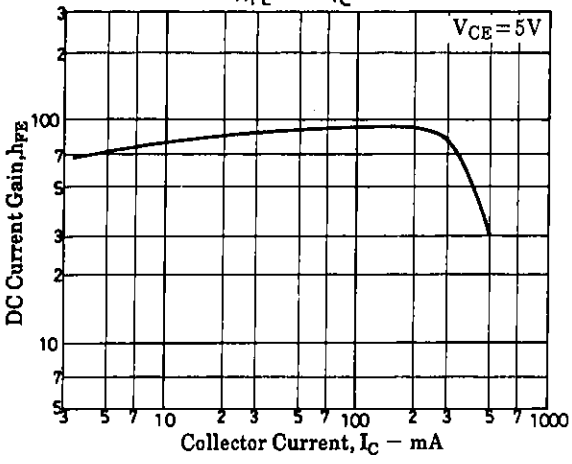
I_C – V_{CE}



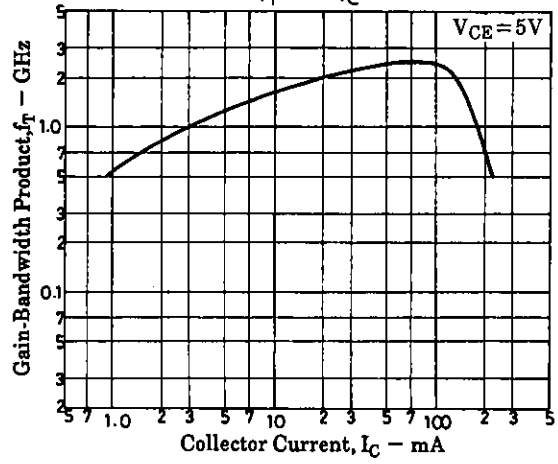
I_C – V_{CE}



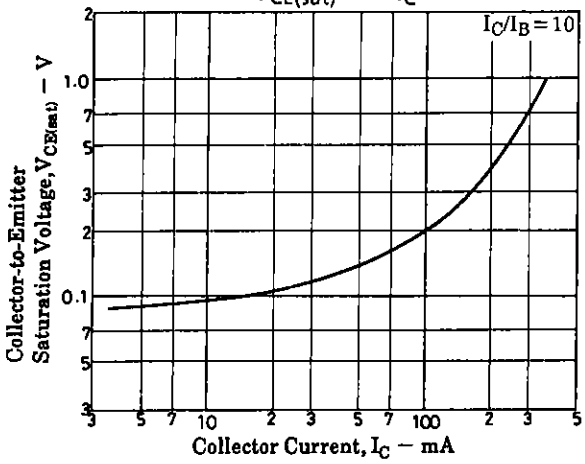
h_{FE} – I_C



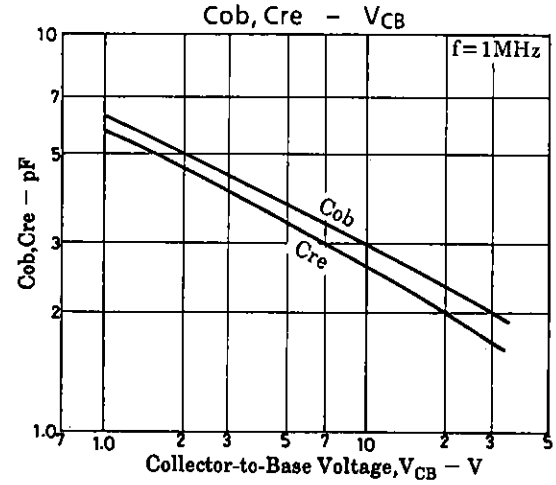
f_T – I_C



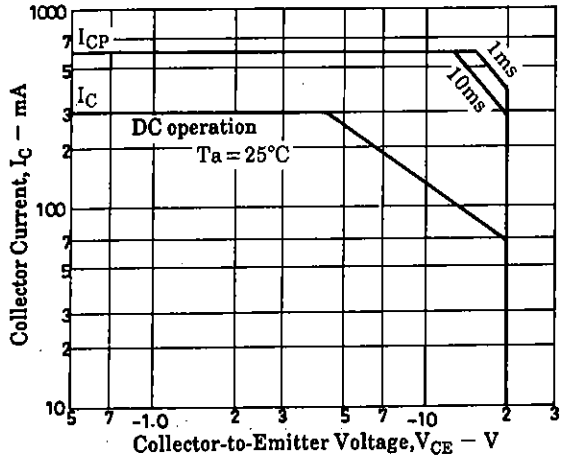
$V_{CE(sat)}$ – I_C



Cob, Cre – V_{CB}



ASO



P_C – Ta