

SANYO	No.3160A	2SC4504
		NPN Epitaxial Planar Silicon Transistor High-Definition CRT Display Video Output Driver Applications

Features

- High f_T ($f_T = 2.2\text{GHz}$ typ).
- Large current ($I_C = 300\text{mA}$).
- Adoption of FBET process.

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

			unit
Collector-to-Base Voltage	V_{CB0}	30	V
Collector-to-Emitter Voltage	V_{CE0}	20	V
Emitter-to-Base Voltage	V_{EB0}	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 ($250\text{mm}^2 \times 0.8\text{mm}$)	1.3 W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

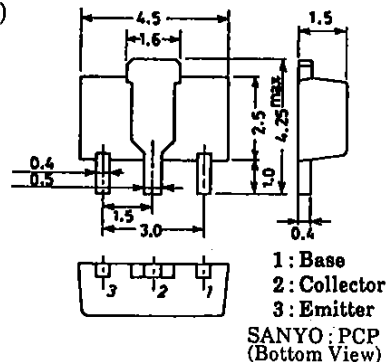
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 20\text{V}, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			5.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	40*		200*	
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 300\text{mA}$	20			
Gain-Bandwidth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

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

40	C	80	60	D	120	100	E	200
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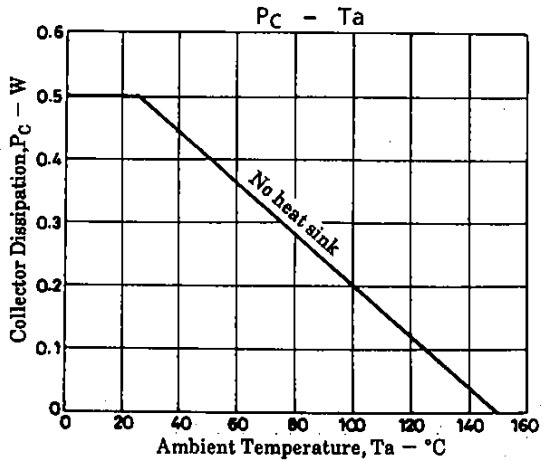
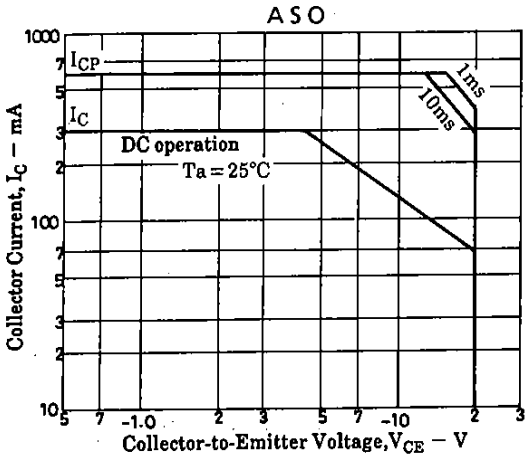
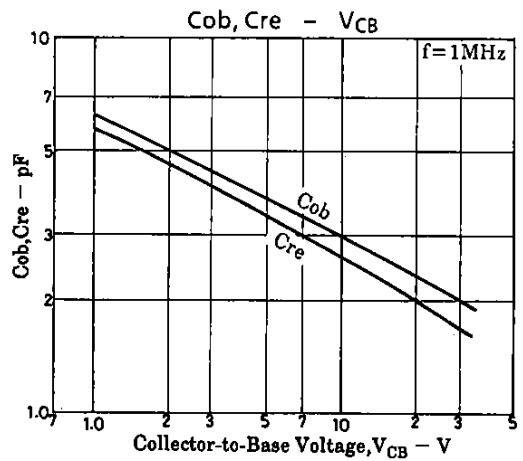
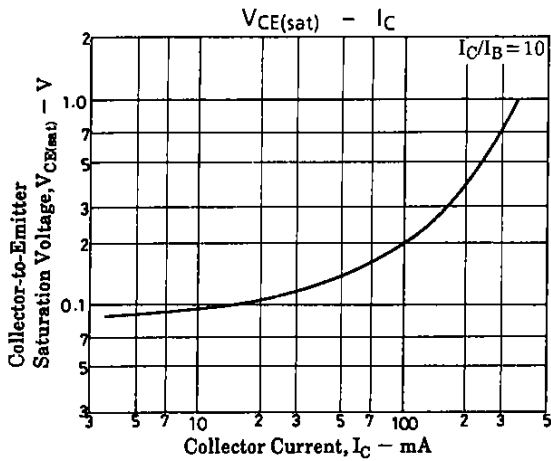
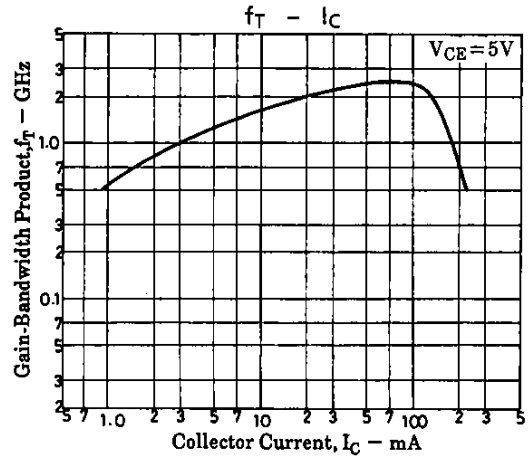
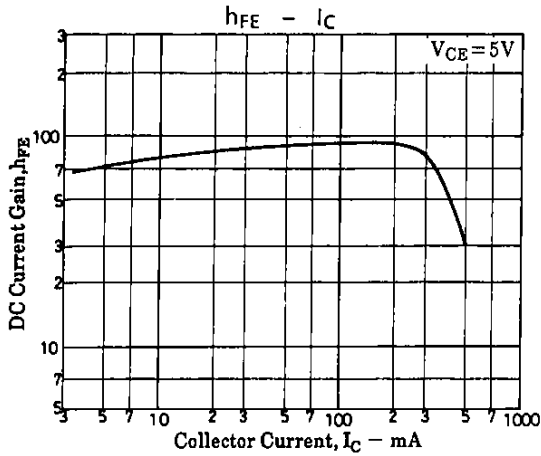
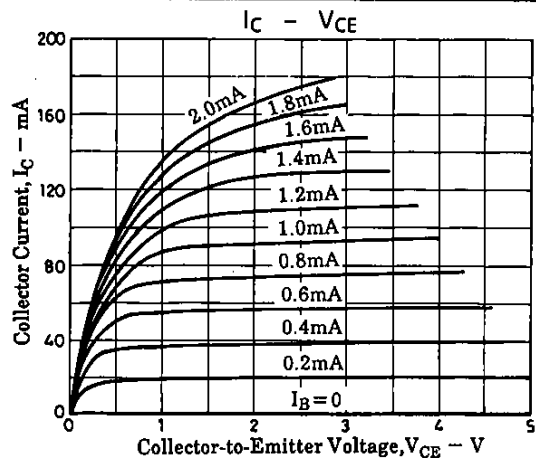
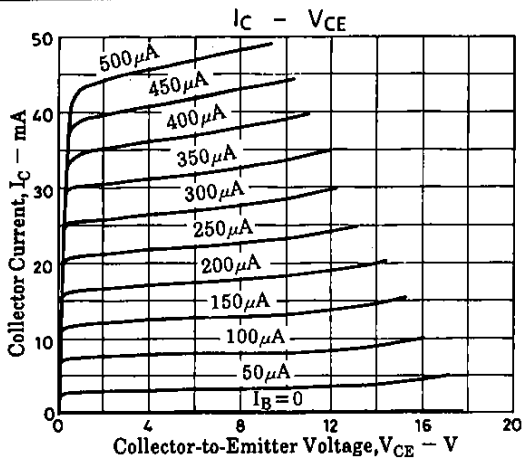
Marking : CM
 h_{FE} rank : C, D, E

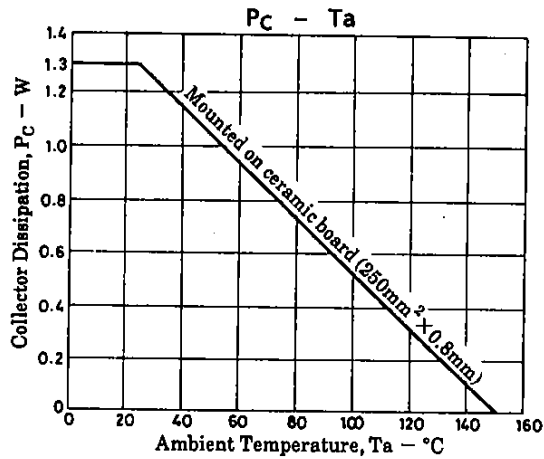
Package Dimensions 2038A
(unit : mm)



SANYO Electric Co., Ltd. Semiconductor Business Headquarters
 TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

72895MO/6279MO, TS X-6587 No.3160-1/3





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