

SANYO	No.3644	2SA1777/2SC4623
		PNP/NPN Epitaxial Planar Silicon Transistors Very High-Definition CRT Display Video Output Applications

Features

- High f_T : $f_T = 400\text{MHz}(\text{typ})$.
- High breakdown voltage: $V_{CEO} \geq 250\text{V}(\text{min})$.
- High current.
- Small reverse transfer capacitance and excellent high-frequency characteristic:
Cre = 3.4pF(NPN), 4.2pF(PNP).
- Complementary pair with the 2SA1777/2SC4623.
- Adoption of FBET process.

() : 2SA1777

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-) 250	V
Collector-to-Emitter Voltage	V_{CEO}	(-) 250	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	1.3	W
		10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-55 \text{ to } +150$	$^\circ\text{C}$

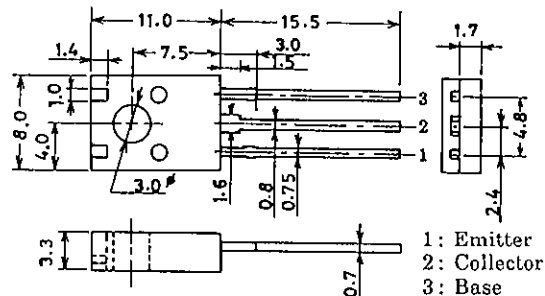
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)150\text{V}, I_E = 0$			(-) 0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)2\text{V}, I_C = 0$			(-) 1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$	40^*		200^*	
	$h_{FE}(2)$	$V_{CE} = (-)10\text{V}, I_C = (-)250\text{mA}$	20			
Gain Bandwidth Product	f_T	$V_{CE} = (-)30\text{V}, I_C = (-)100\text{mA}$		400		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		$(5.0)4.2$		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		$(4.2)3.4$		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			(-) 1.0	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			(-) 1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-) 250			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-) 250			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)100\mu\text{A}, I_C = 0$	(-) 3			V

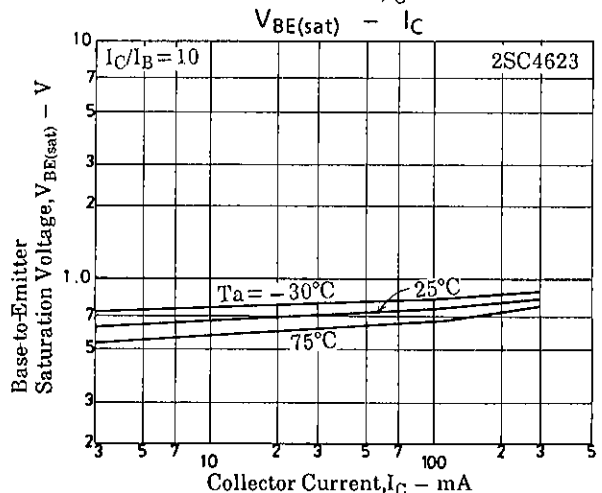
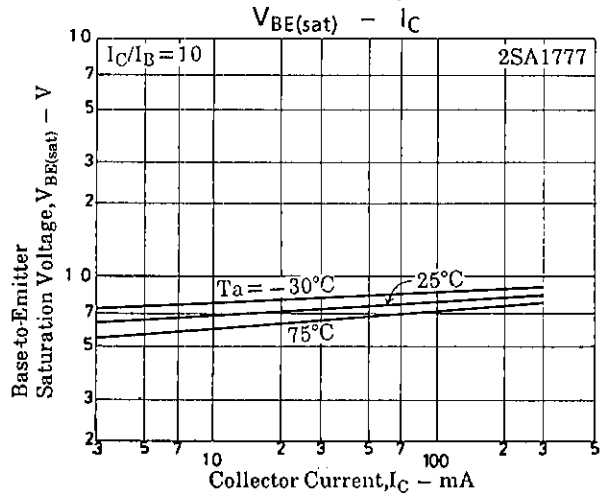
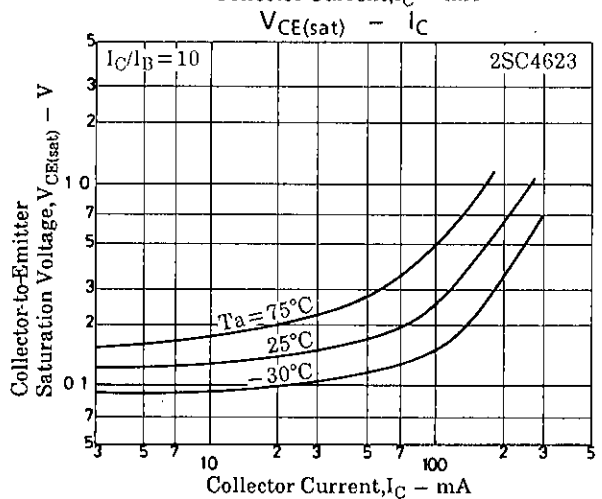
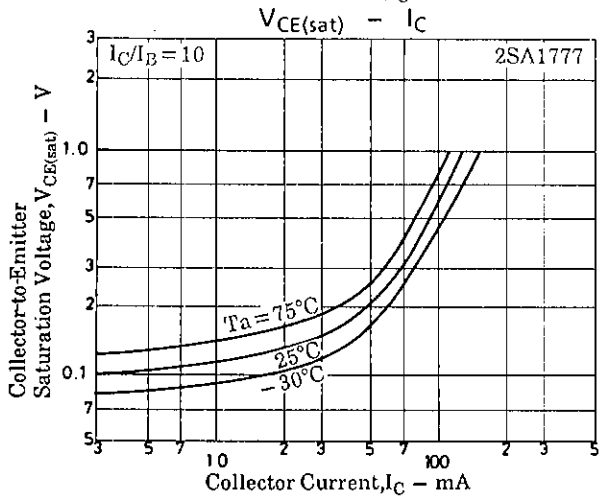
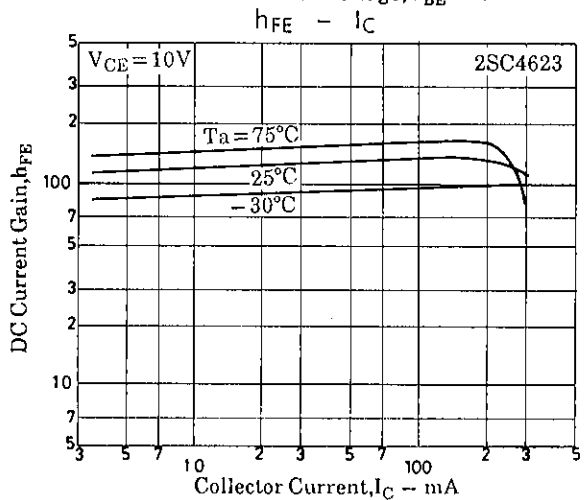
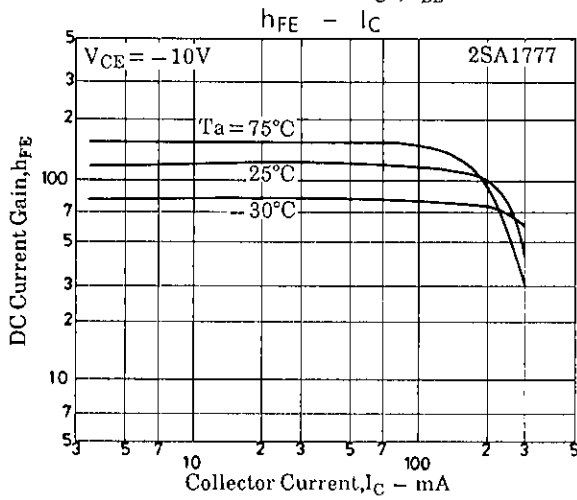
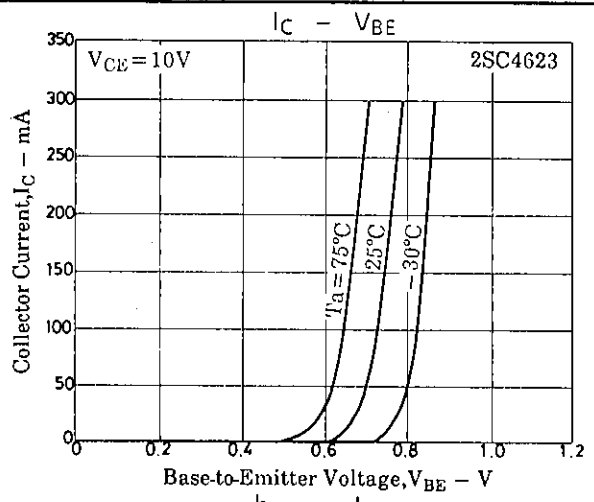
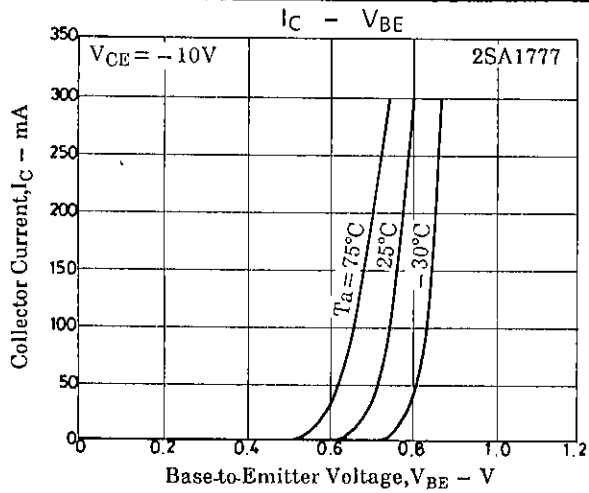
* : The 2SA1777/2SC4623 are classified by 50mA h_{FE} as follows :

40	C	80	60	D	120	100	E	200
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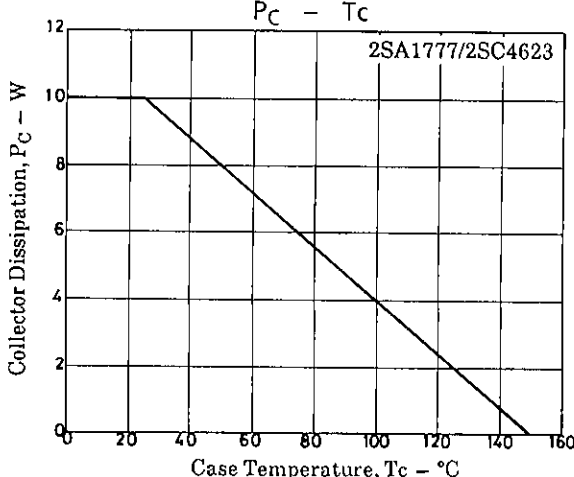
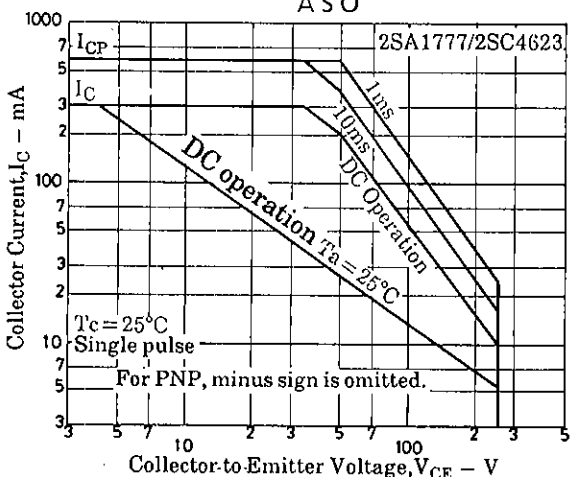
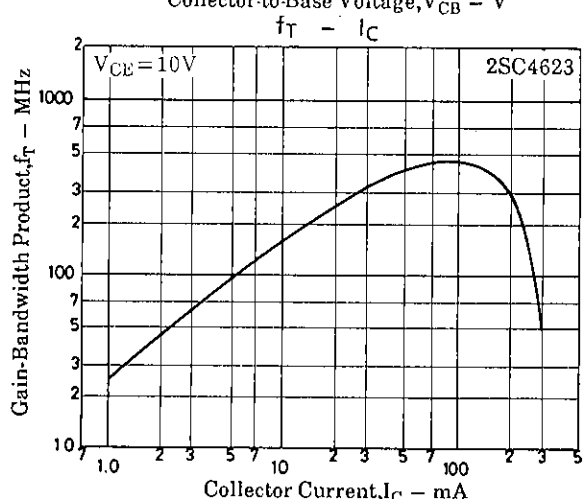
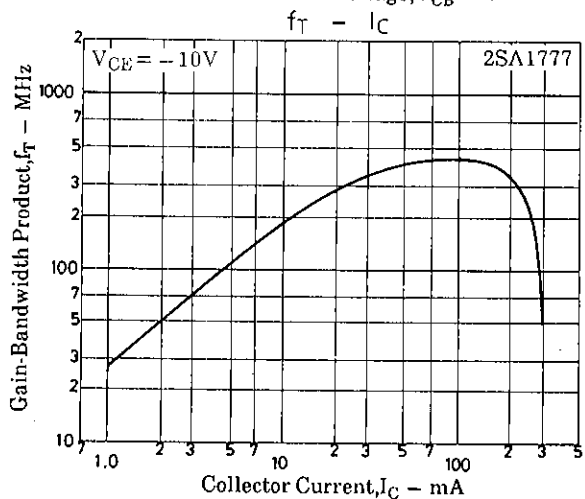
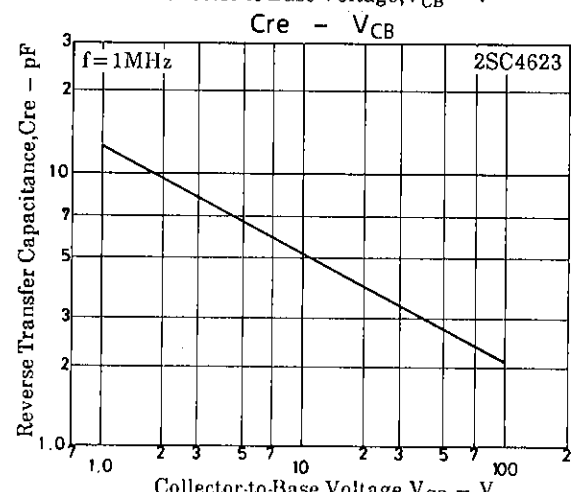
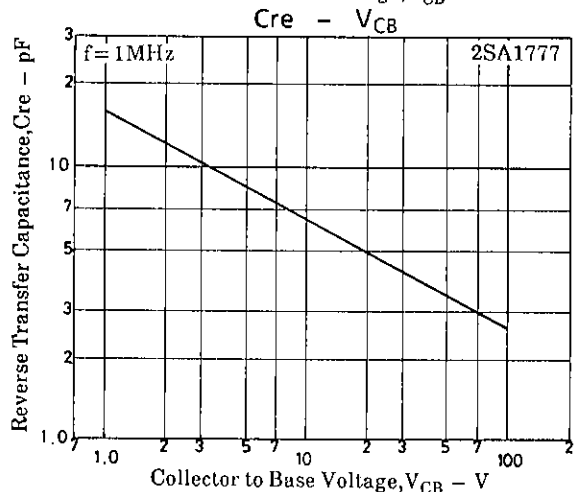
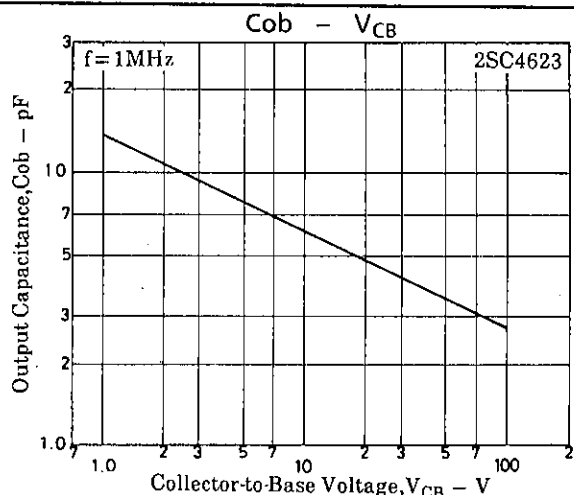
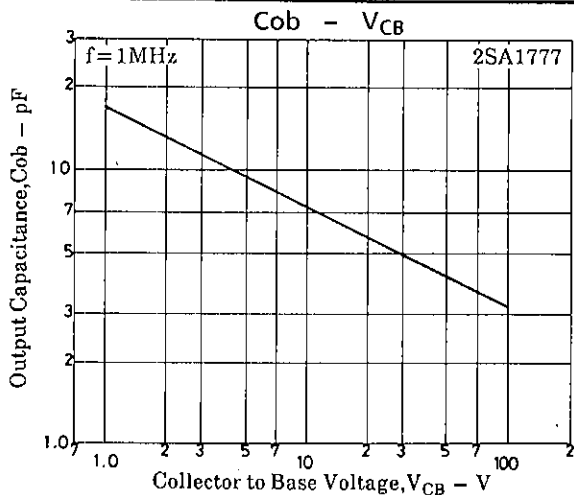
Package Dimensions 2042B
(unit: mm)

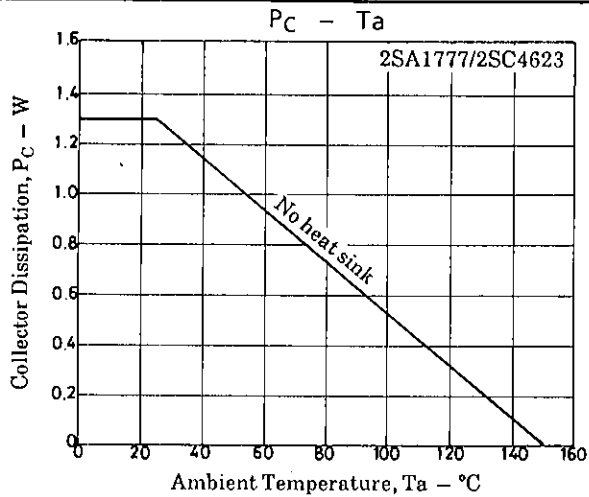


1: Emitter
2: Collector
3: Base
SANYO: TO126ML



2SA1777/2SC4623





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