

<b>SANYO</b>	No.3644	<b>2SA1777/2SC4623</b>
		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	$T_{stg}$	$-55$ to $+150$	$^\circ\text{C}$

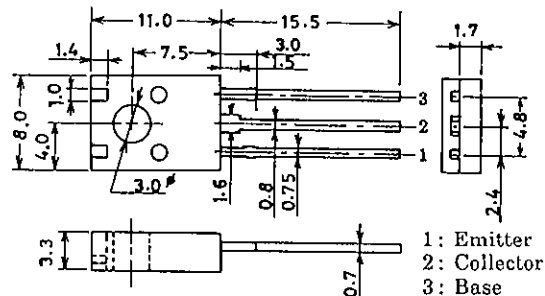
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)150\text{V}, I_E = 0$			(-) $0.1$	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)2\text{V}, I_C = 0$			(-) $1.0$	$\mu\text{A}$
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 :

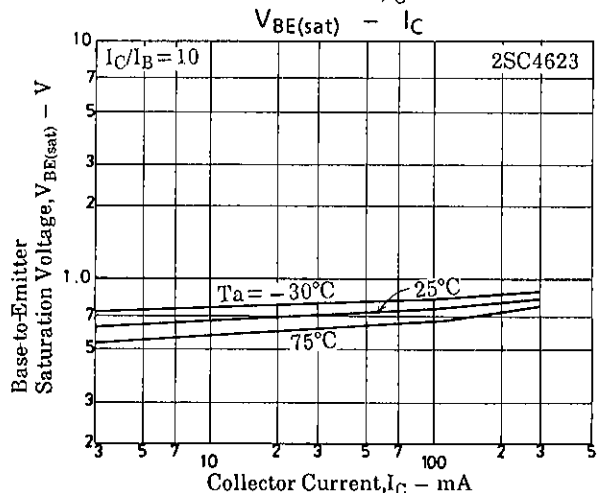
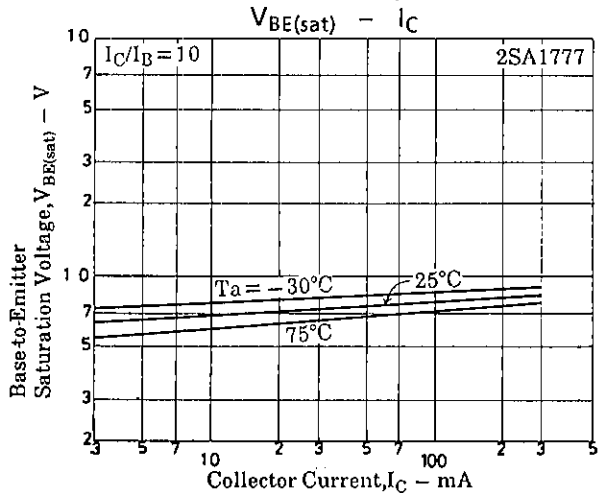
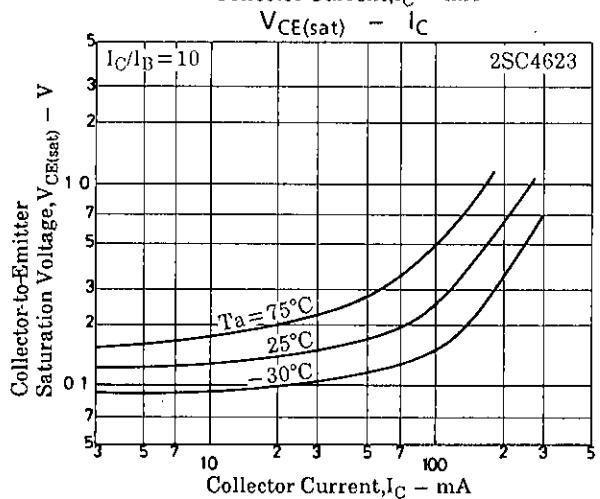
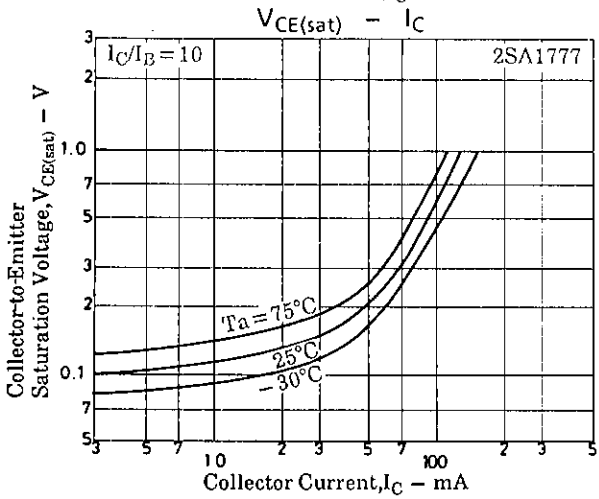
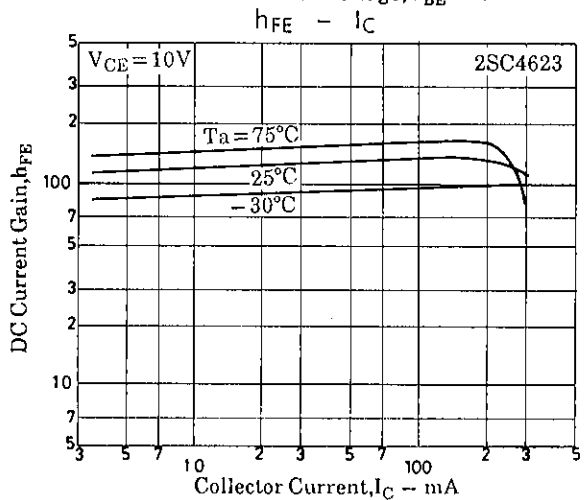
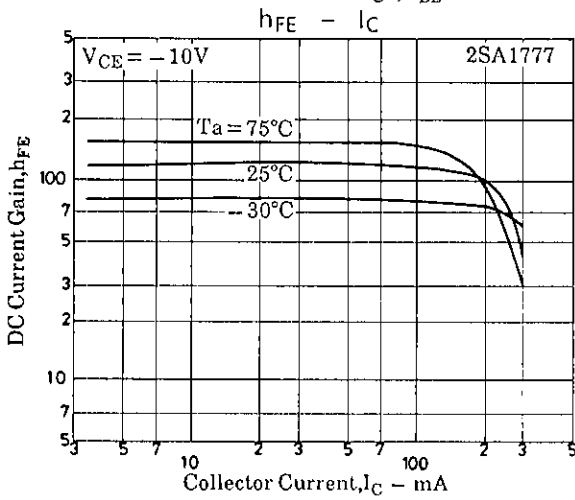
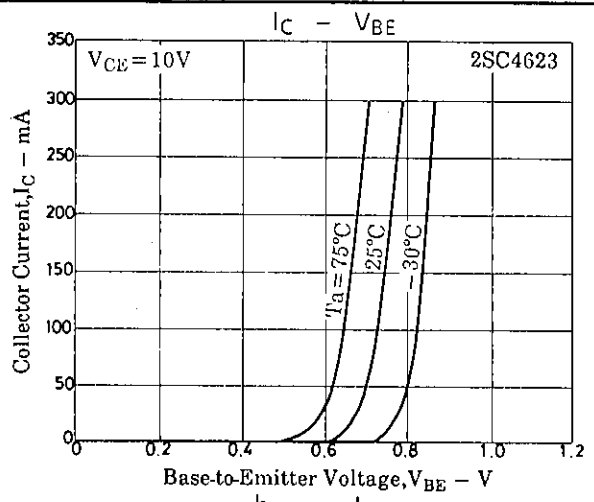
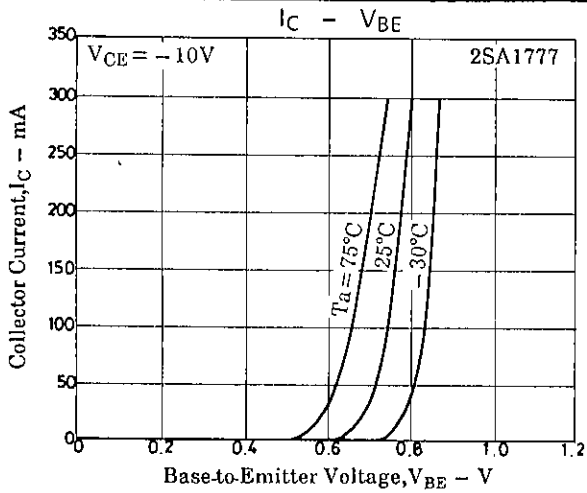
40	C	80	60	D	120	100	E	200
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**Package Dimensions 2042B**  
(unit: mm)

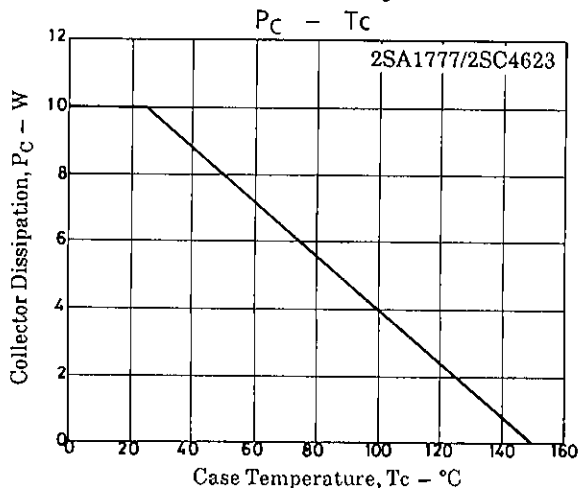
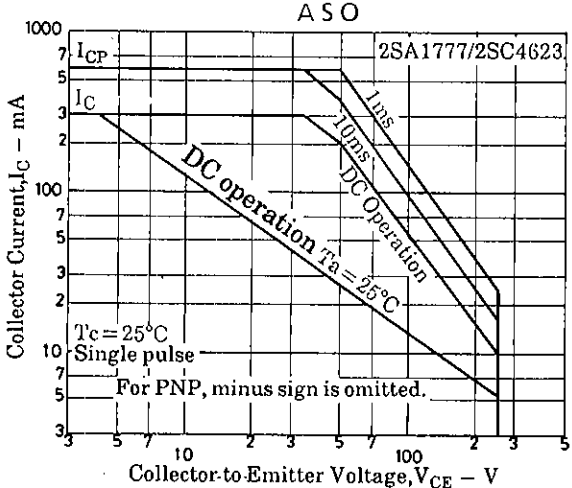
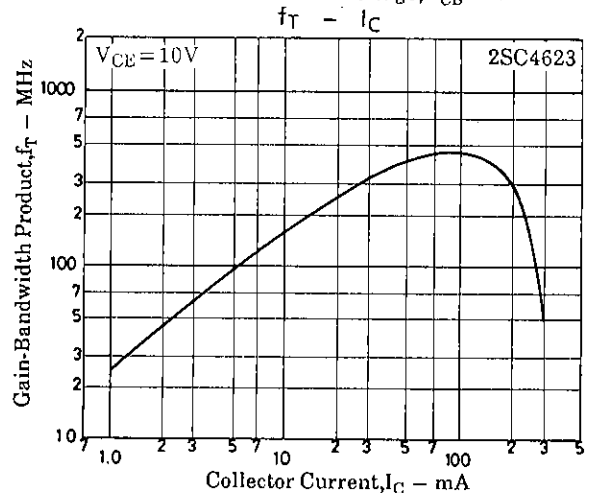
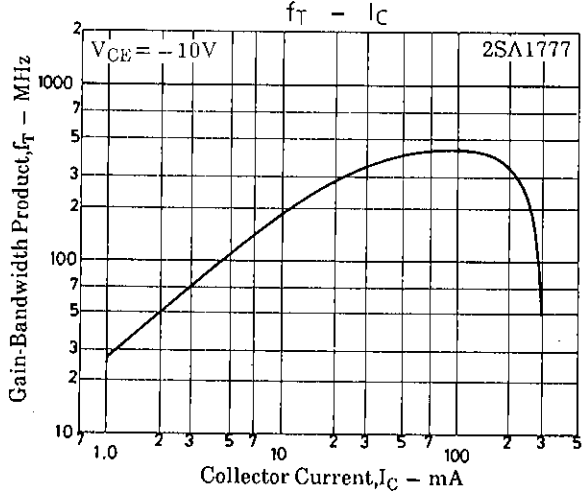
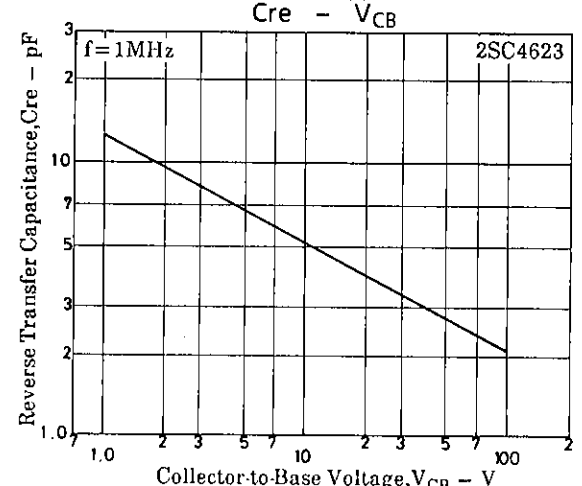
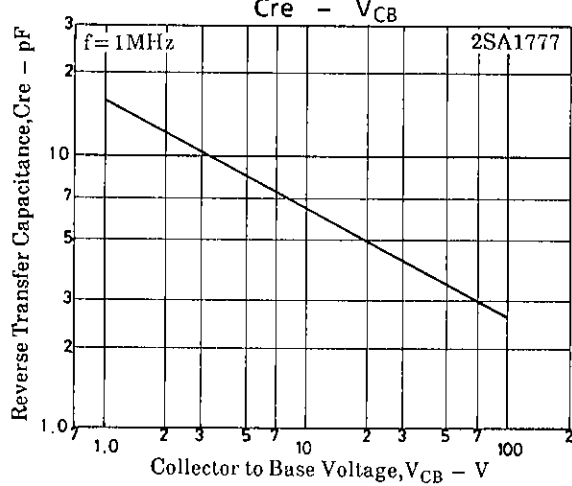
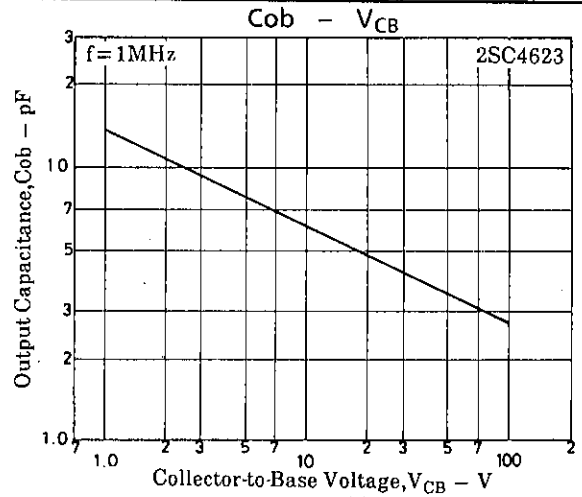
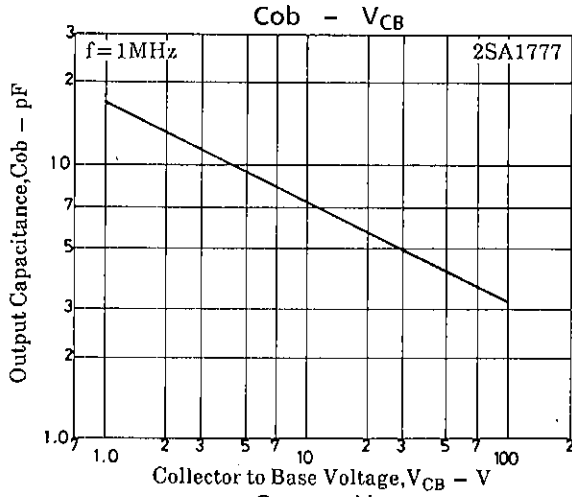


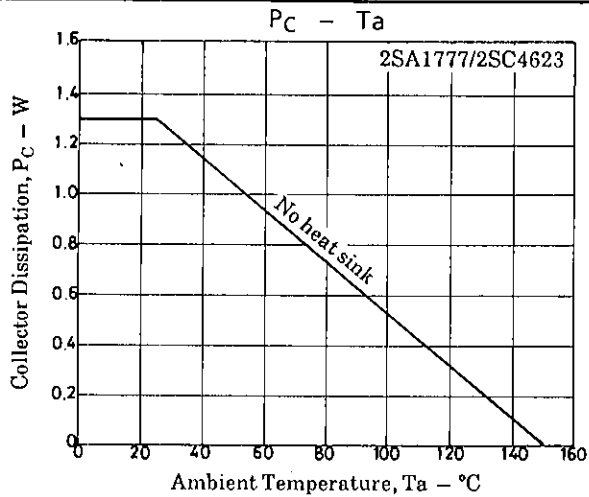
1: Emitter  
2: Collector  
3: Base

SANYO: TO126ML



2SA1777/2SC4623





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