

<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 :  
 $C_{re} = 3.4\text{pF}(\text{NPN}), 4.2\text{pF}(\text{PNP})$ .
- 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	$^\circ\text{C}$

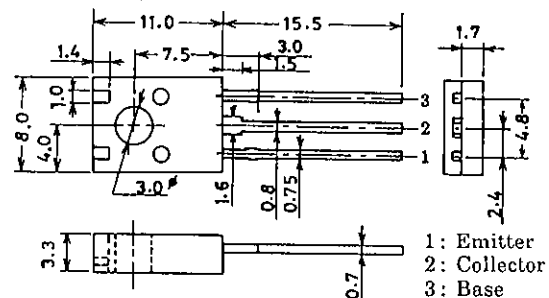
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$**

			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

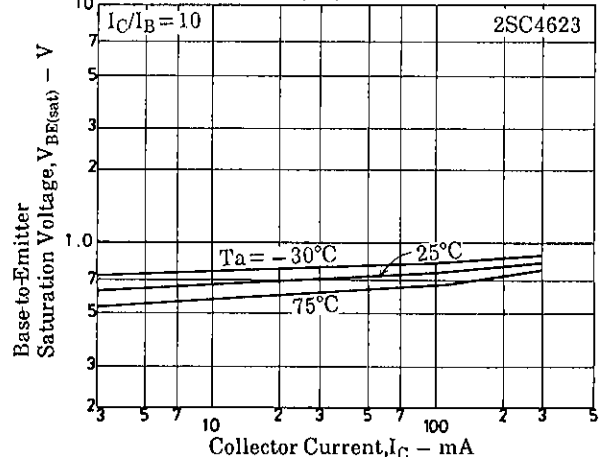
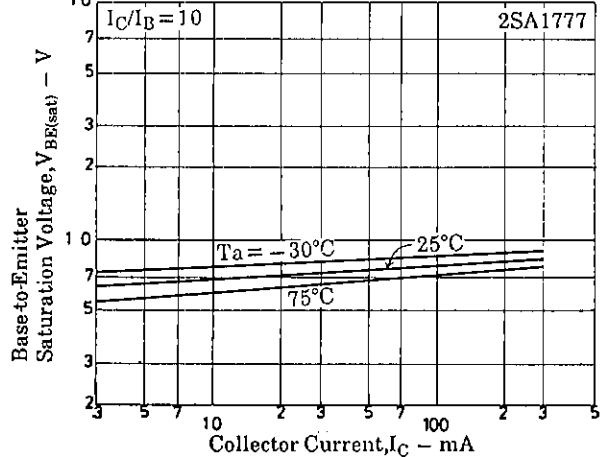
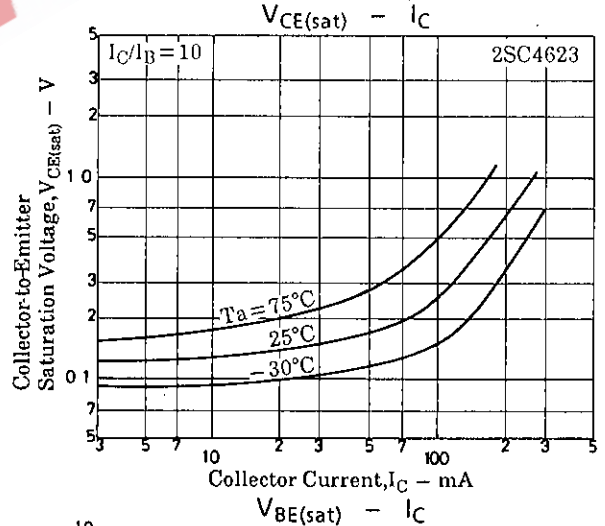
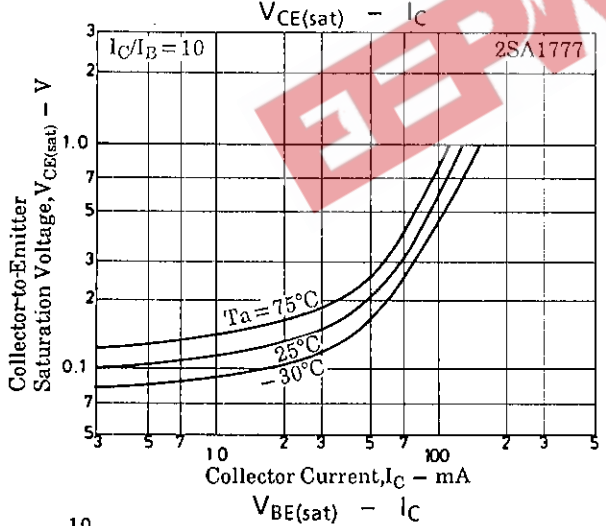
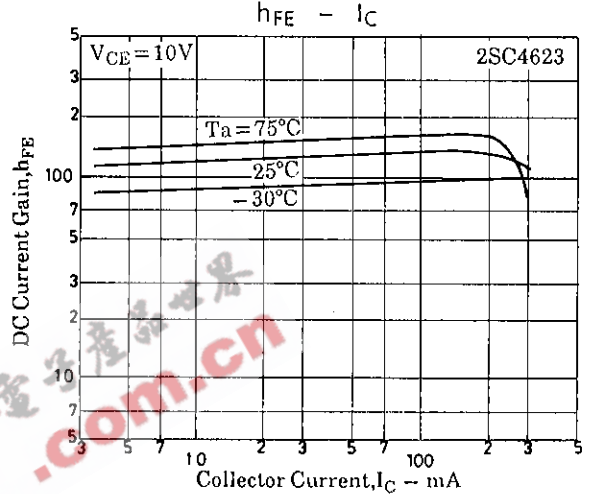
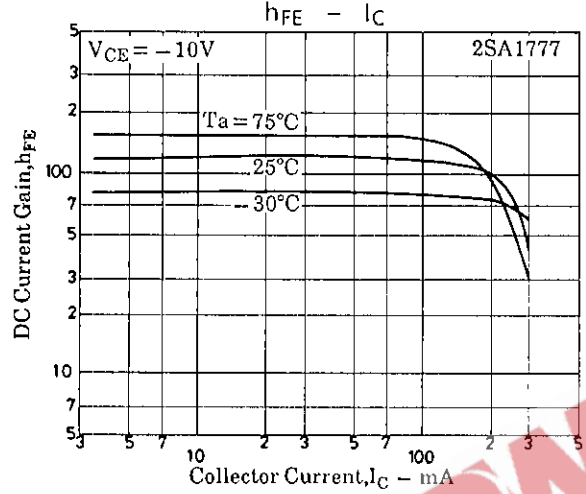
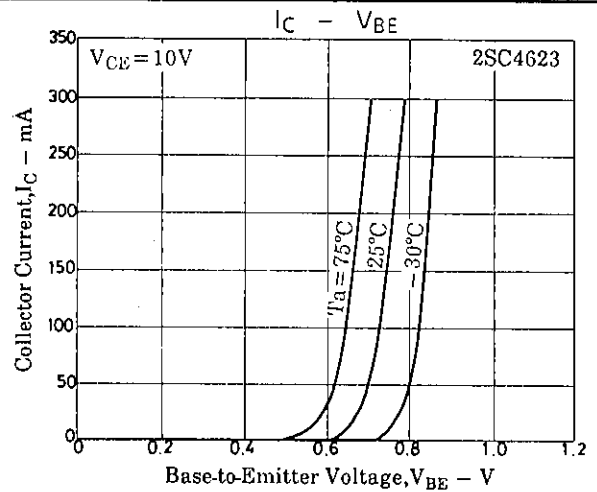
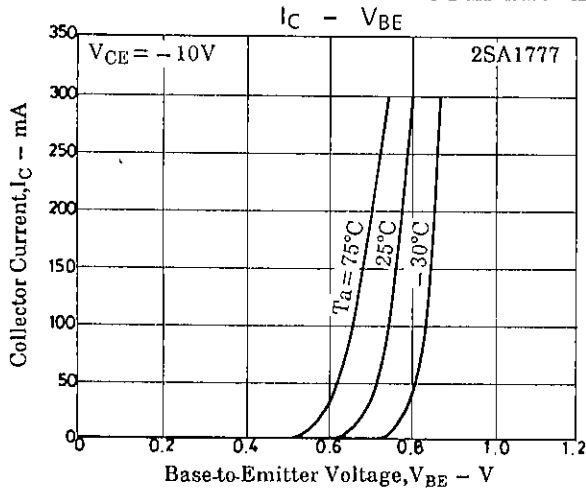
\* : The 2SA1777/2SC4623 are classified by 50mA  $h_{FE}$  as follows :

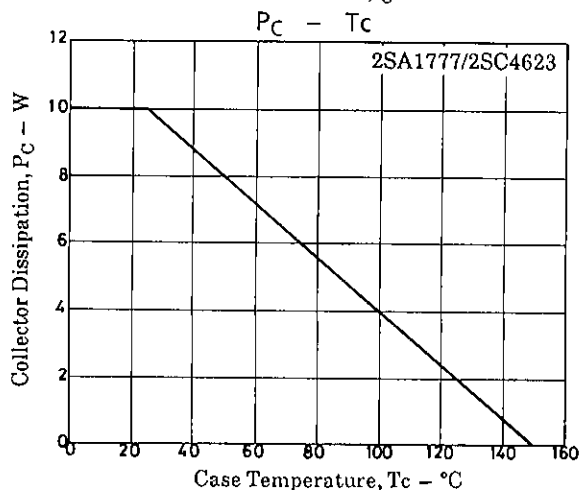
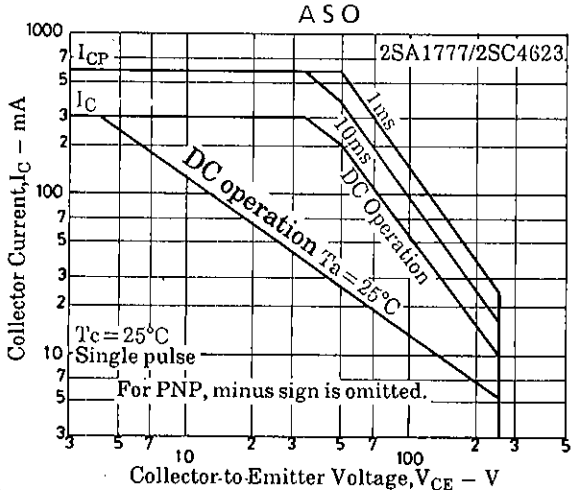
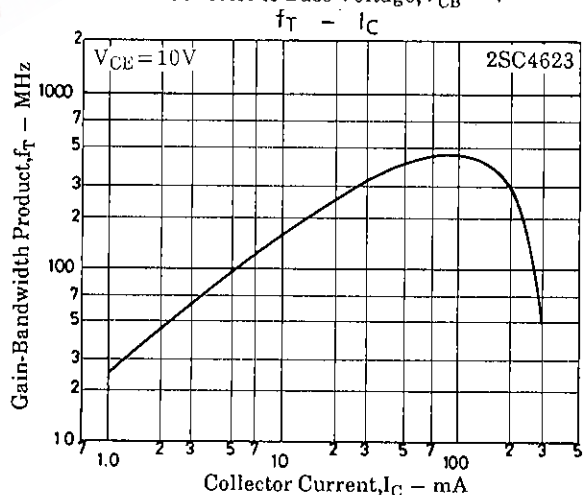
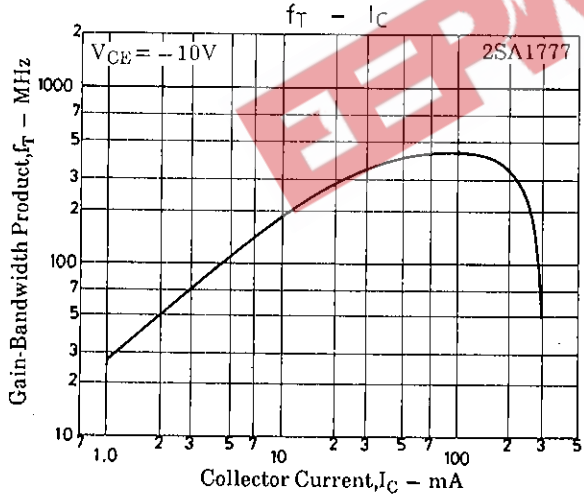
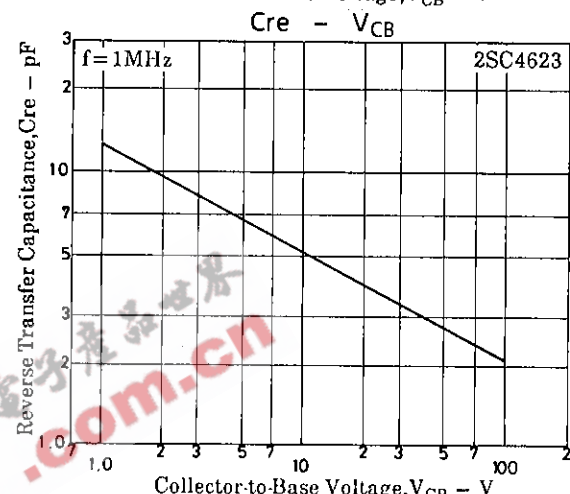
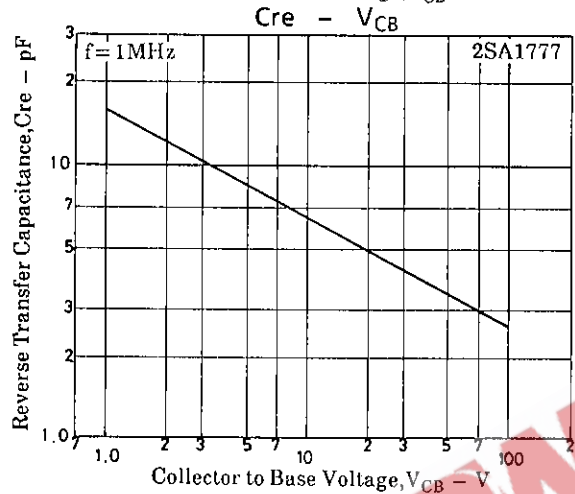
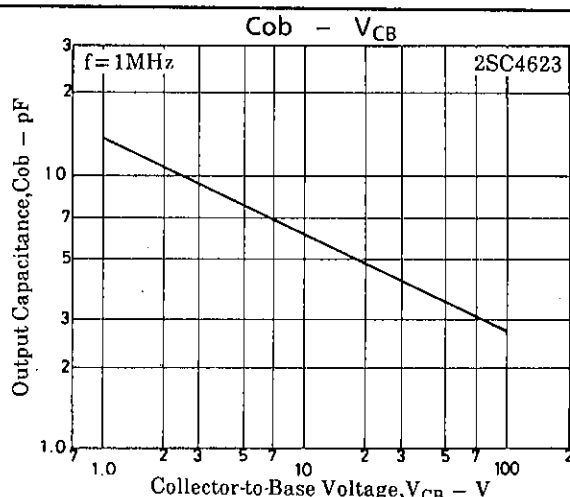
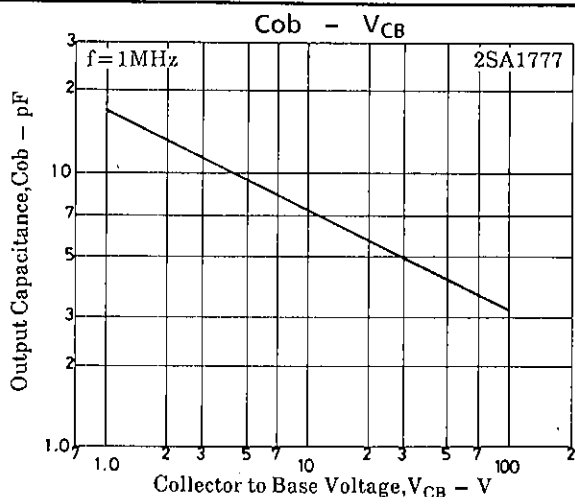
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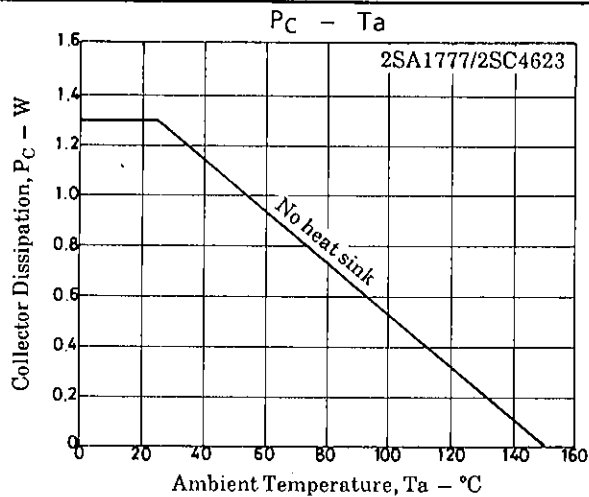
**Package Dimensions 2042B**  
(unit : mm)



SANYO: TO126ML







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