

<b>SANYO</b>	No.3581	<b>2SA1787/2SC4650</b>
		PNP/NPN Epitaxial Planar Silicon Transistors High-Definition CRT Display Video Output Applications

**Features**

- High breakdown voltage :  $V_{CEO} \geq 200V$
- Small reverse transfer capacitance and excellent high frequency characteristic  
:  $c_{re} = 1.2pF(NPN), 1.7pF(PNP)$
- Adoption of FBET processes

( ) : 2SA1786

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

			unit
Collector to Base Voltage	$V_{CBO}$	(- )200	V
Collector to Emitter Voltage	$V_{CEO}$	(- )200	V
Emitter to Base Voltage	$V_{EBO}$	(- )5	V
Collector Current	$I_C$	(- )100	mA
Collector Current(Pulse)	$I_{CP}$	(- )200	mA
Collector Dissipation	$P_C$	1.0	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

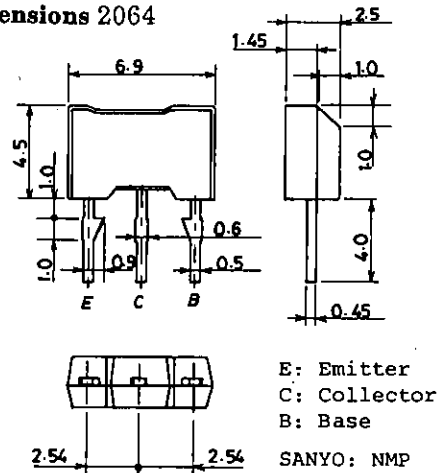
**Electrical Characteristics at  $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)150V, I_E = 0$			(- )0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(- )0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = (-)10V, I_C = (-)10mA$	60		320	
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)30V, I_C = (-)10mA$		150		MHz
Output Capacitance	$c_{ob}$	$V_{CB} = (-)30V, f = 1MHz$		(2.6)1.7		pF
Reverse Transfer Capacitance	$c_{re}$	$V_{CB} = (-)30V, f = 1MHz$		(1.7)1.2		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(- )0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(- )1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(- )200			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(- )200			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$	(- )5			V

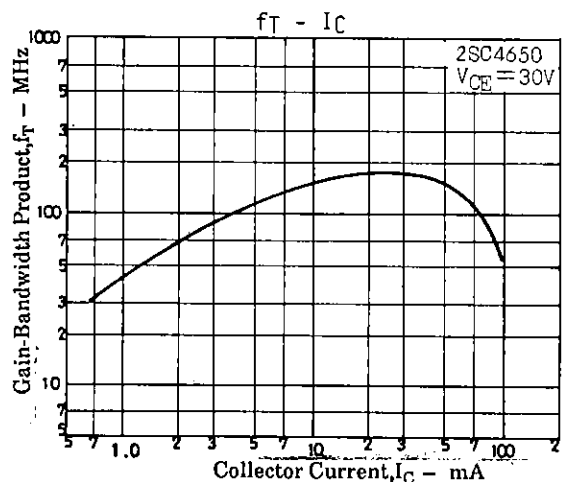
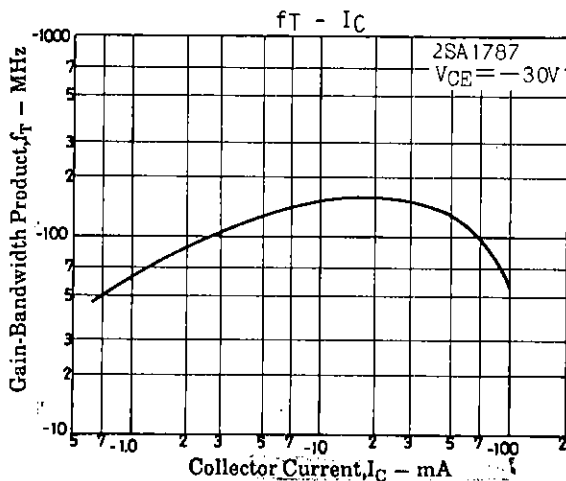
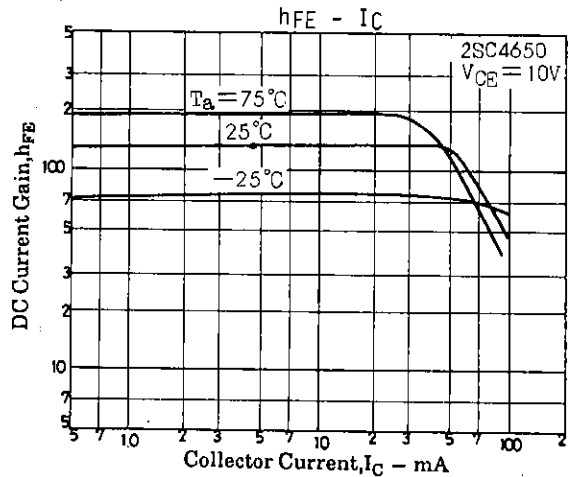
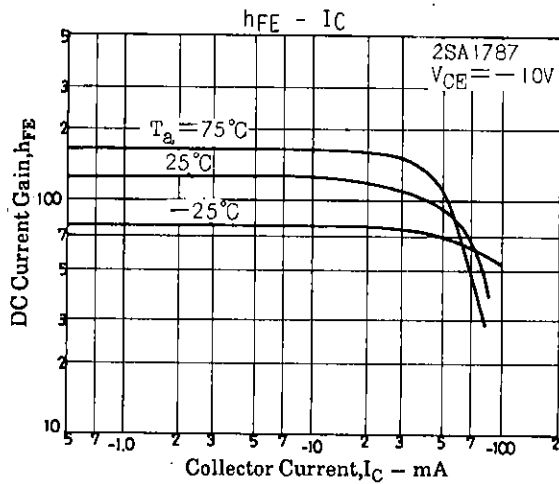
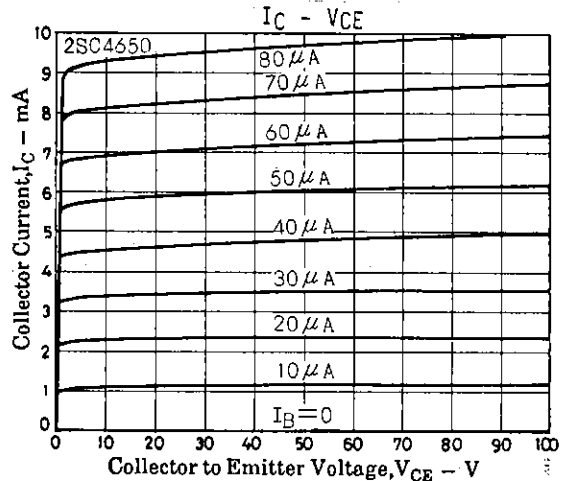
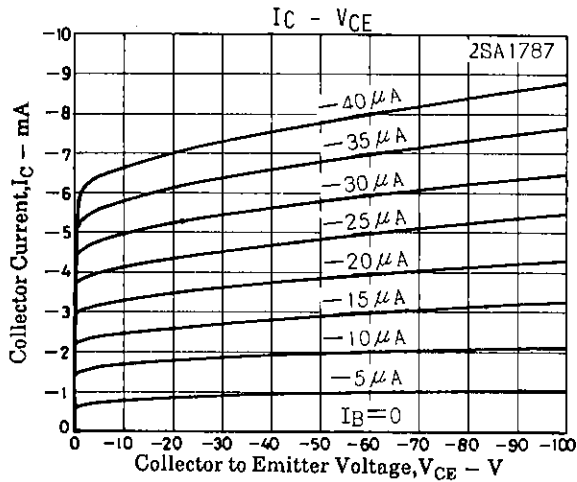
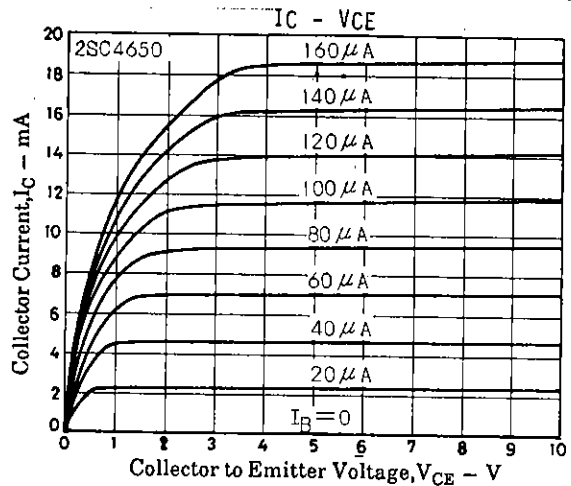
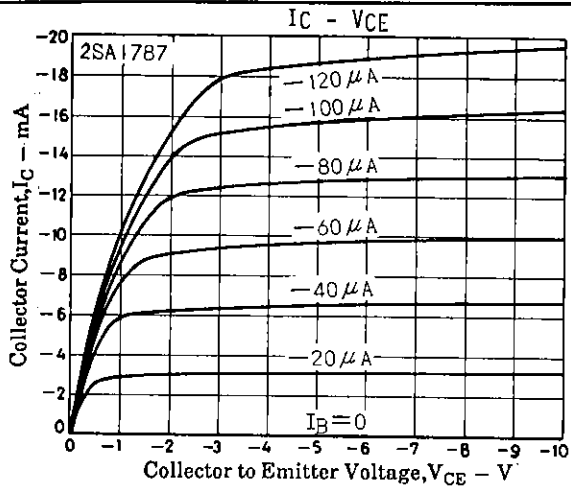
\*: The 2SA1787/2SC4650 are classified by 10mA  $h_{FE}$  as follows:

60 D 120	100 E 200	160 F 320
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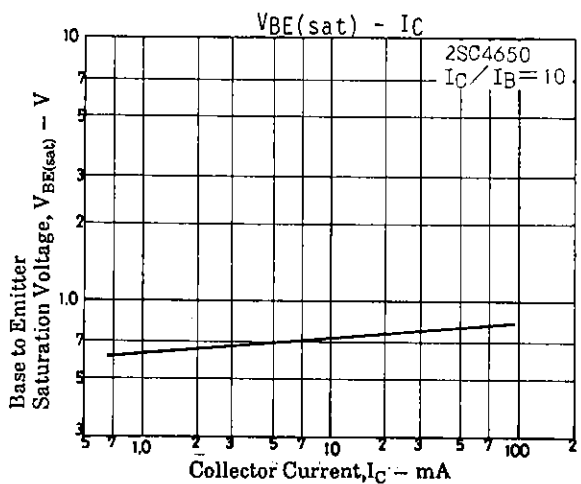
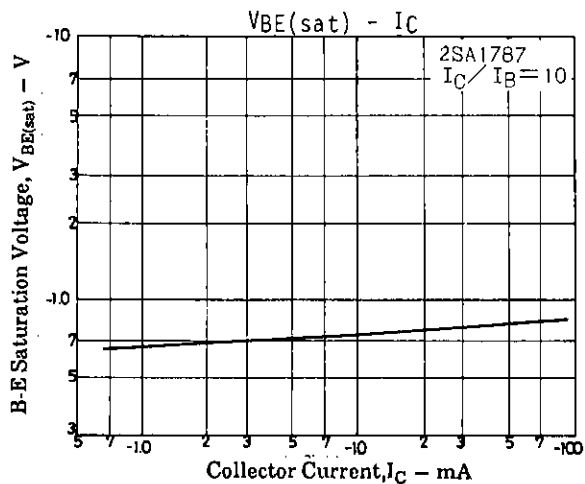
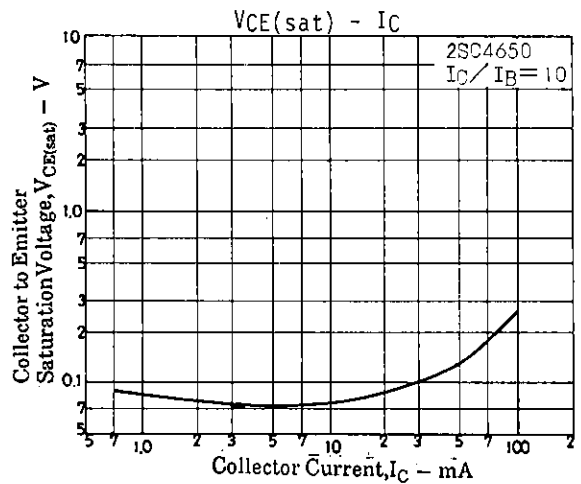
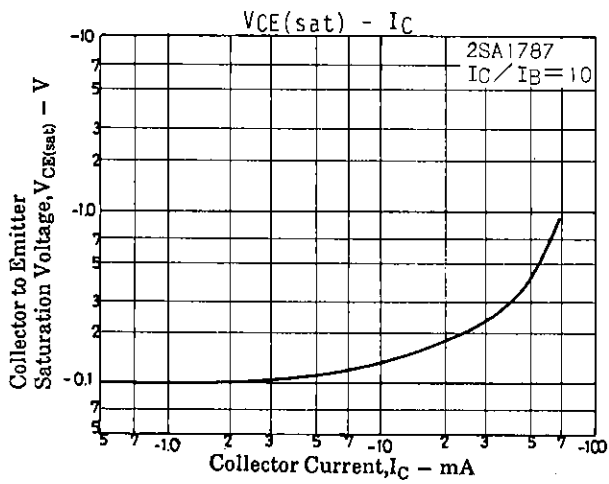
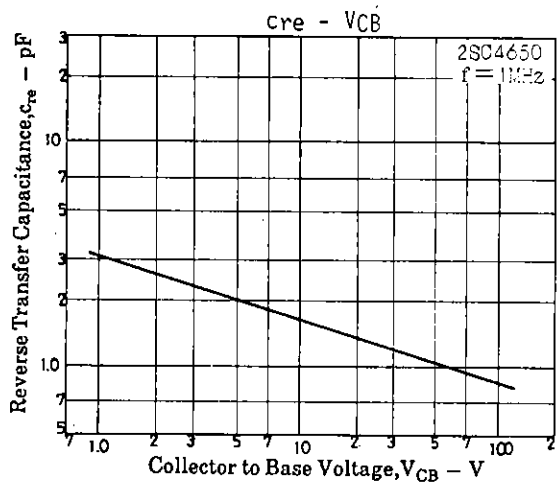
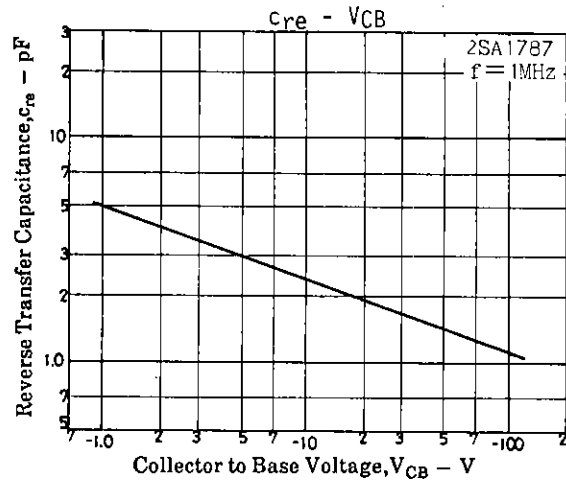
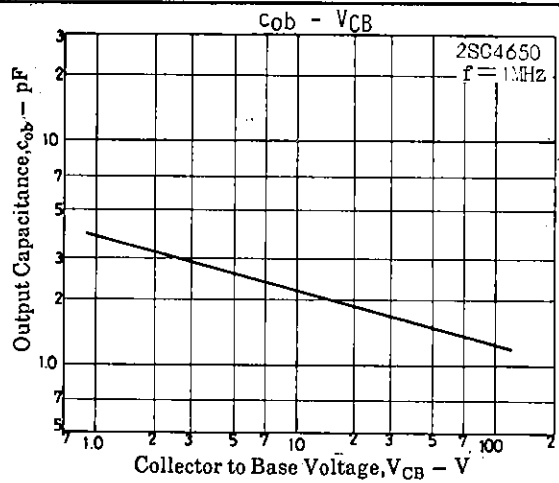
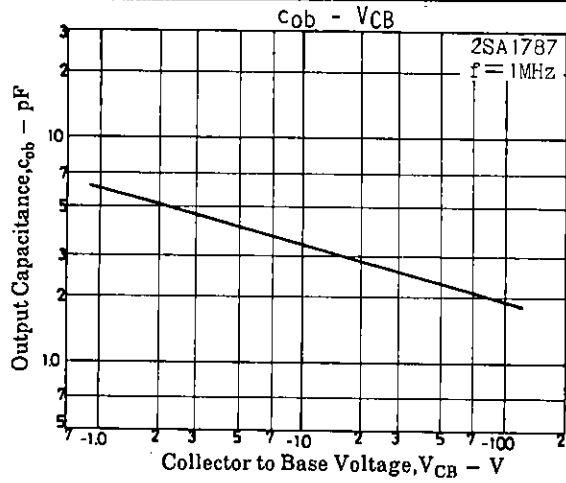
**Package Dimensions 2064**  
(unit: mm)



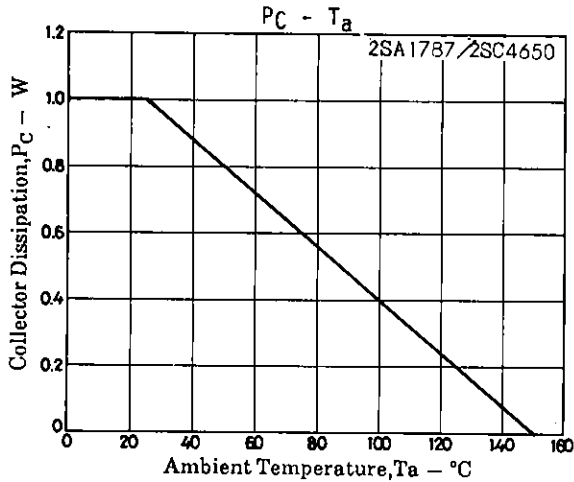
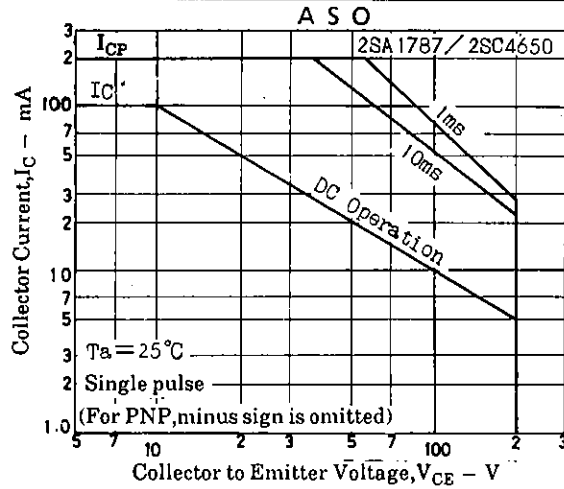
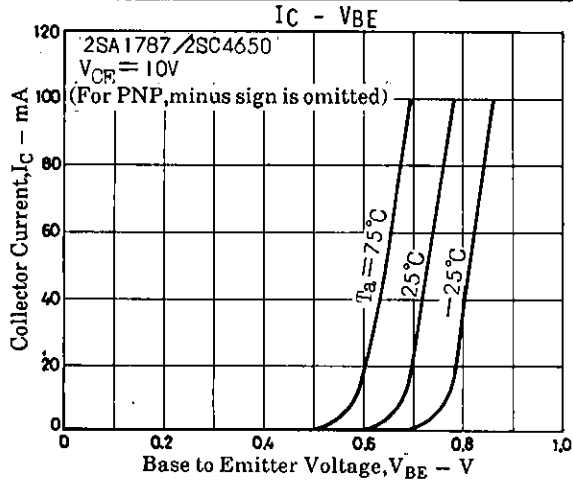
2SA1787/2SC4650



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