

**SANYO**

No.2526

2SA1474/2SC3780

PNP/NPN Epitaxial Planar Type  
Silicon Transistors

VERY HIGH-DEFINITION CRT DISPLAY

VIDEO OUTPUT APPLICATIONS

**Applications**

- Video output
- Color TV chroma output
- Wide-band amp

**Features**

- High  $f_T$  ( $f_T$  typ=800MHz)
- Small reverse transfer capacitance and excellent high frequency characteristic ( $c_{re}$ =3.0pF(NPN), 4.7pF(PNP))
- Complementary PNP and NPN types
- Adoption of FBET process

( ): 2SA1474

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

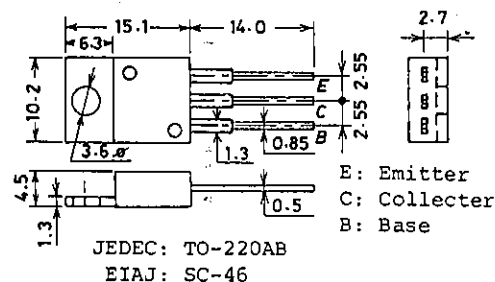
Absolute Maximum Ratings at Ta=25°C				unit
Collector-to-Base Voltage	V <sub>CBO</sub>	(-)80		V
Collector-to-Emitter Voltage	V <sub>CEO</sub>	(-)60		V
Emitter-to-Base Voltage	V <sub>EBO</sub>	(-)4		V
Collector Current	I <sub>C</sub>	(-)800		mA
Peak Collector Current	i <sub>cp</sub>	(-)1		A
Collector Dissipation	P <sub>C</sub>	1.5		W
		Tc=50°C	15	W
Junction Temperature	T <sub>j</sub>	150		°C
Storage Temperature	T <sub>stg</sub>	-55 to +150		°C

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

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)60\text{V}, I_E=0$			(-)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*		320*	
	$h_{FE}(2)$	$V_{CE}=(-)10\text{V}, I_C=(-)400\text{mA}$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)10\text{V}, I_C=(-)100\text{mA}$		800		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100\text{mA}, I_B=(-)10\text{mA}$			0.6	V
					(-0.8)	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100\text{mA}, I_B=(-)10\text{mA}$			(-)1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)100\mu\text{A}, I_C=0$	(-)4			V
Output Capacitance	$c_{ob}$	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		3.5(5.3)		pF
Reverse Transfer Capacitance	$c_{re}$	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		3.0(4.7)		pF

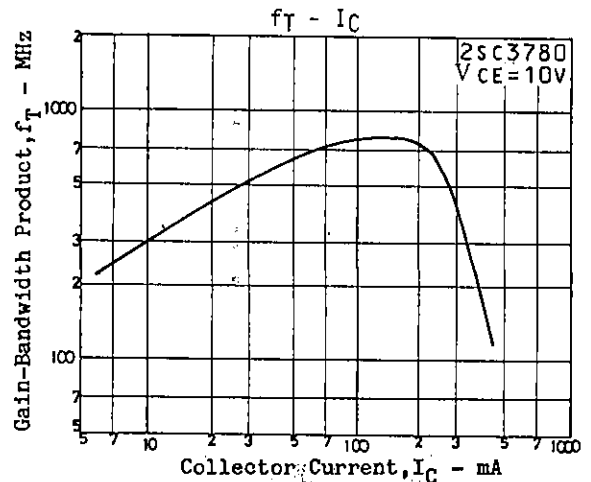
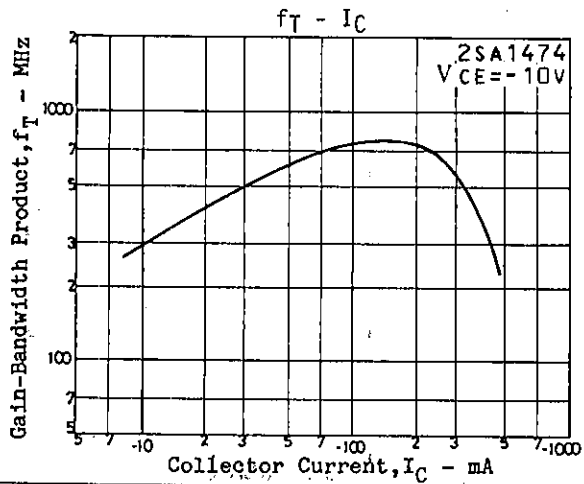
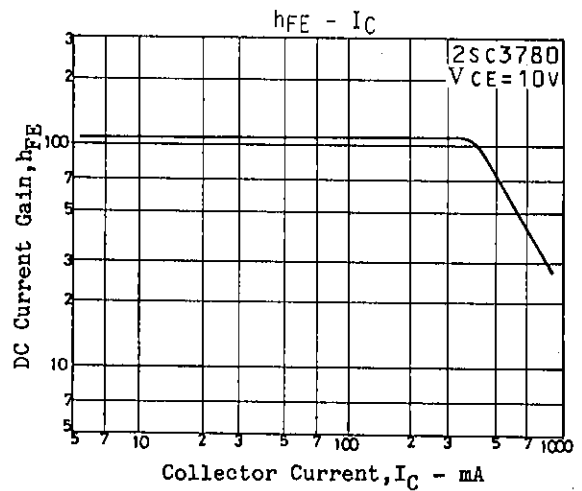
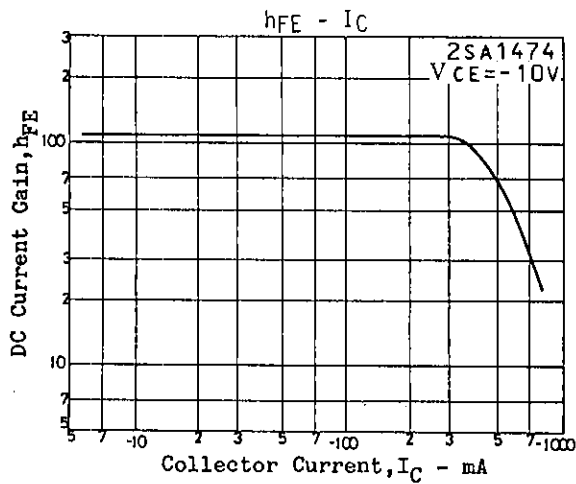
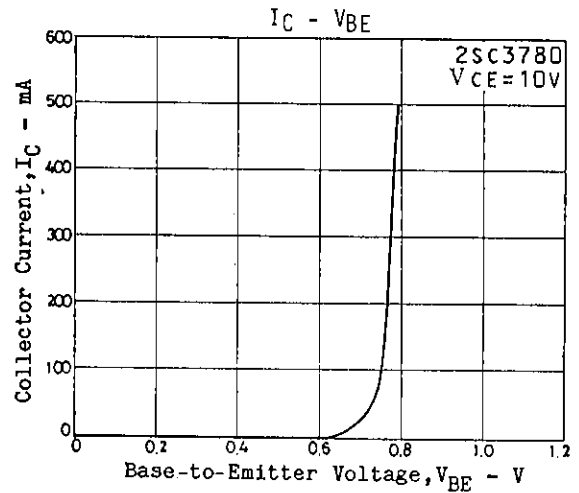
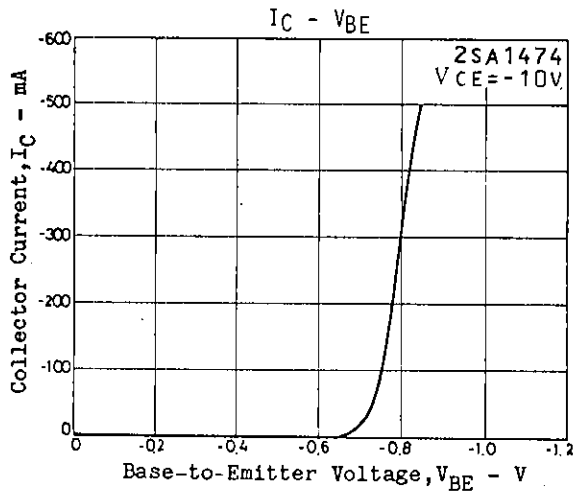
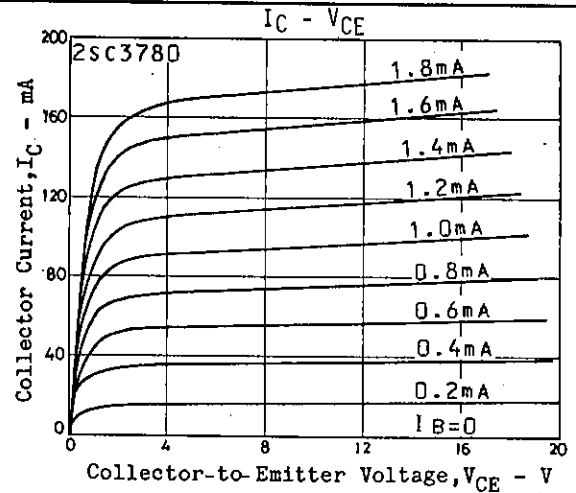
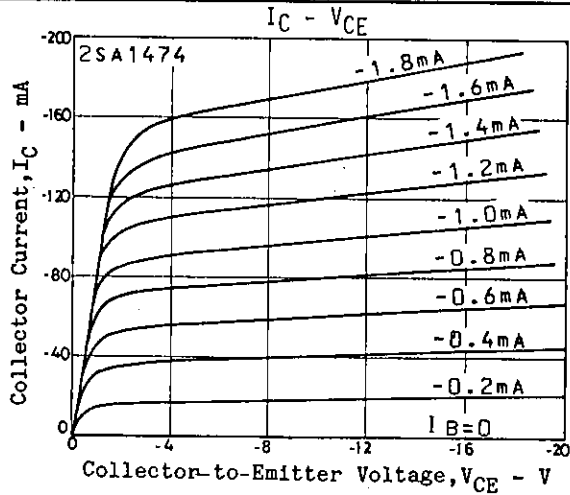
\*: The 2SA1474/2SC3780 are classified by 50mA  $h_{FE}$  as follows:

40	C	80	60	D	120
100	E	200	160	F	320

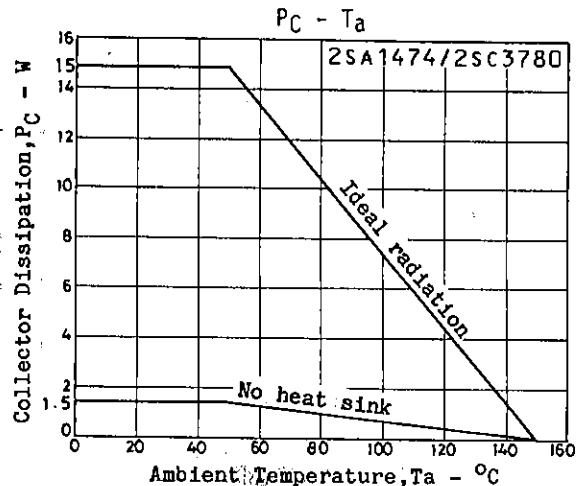
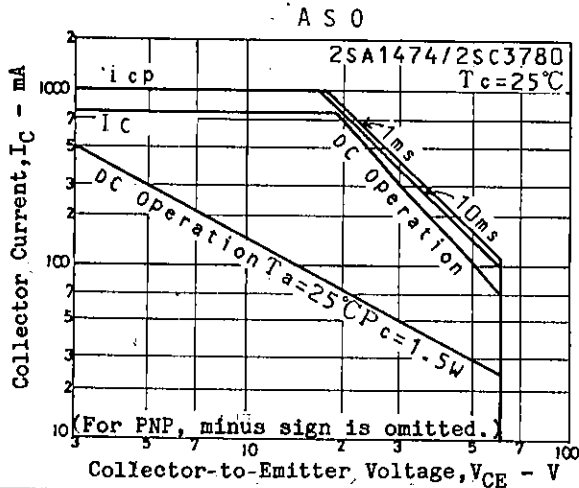
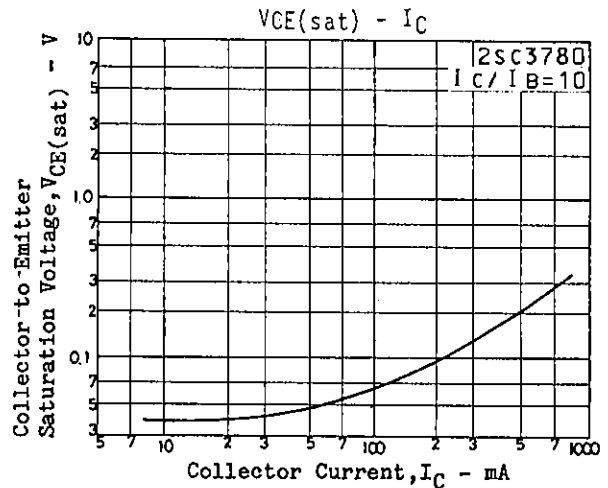
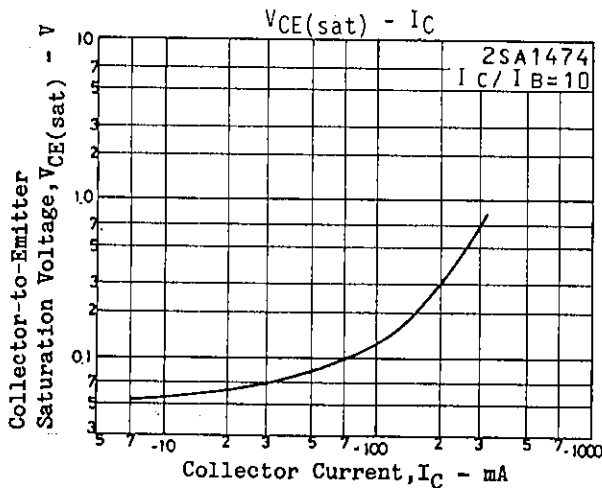
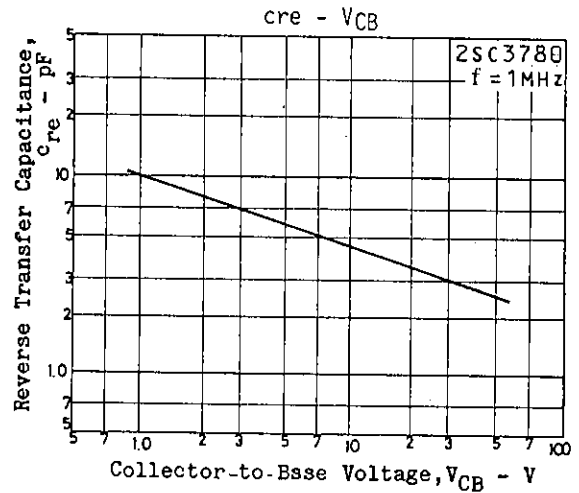
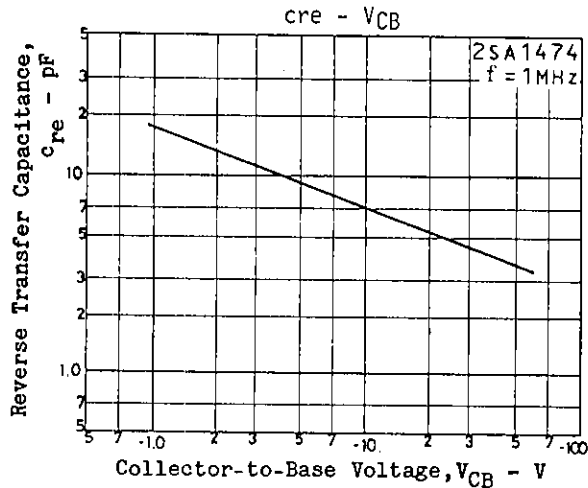
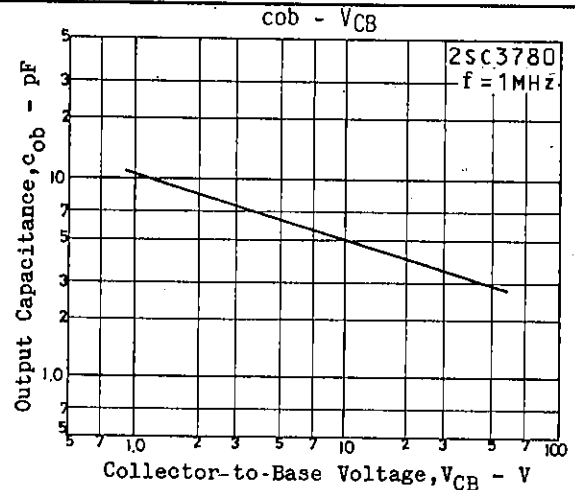
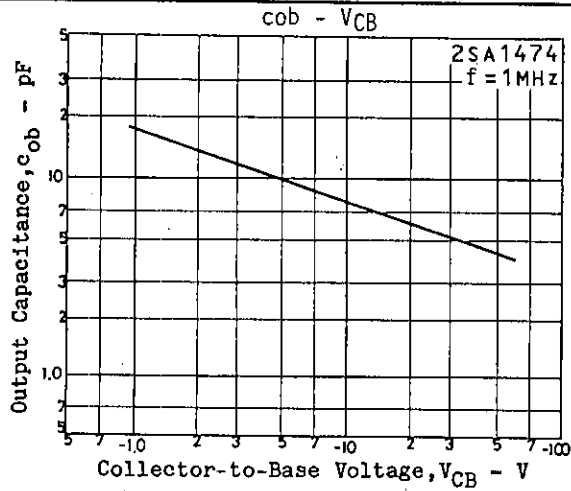
**Package Dimensions 2010A**  
(unit: mm)

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# 2SA1474/2SC3780



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