

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 Ta=25°C

			unit
Collector-to-Base Voltage	V_{CB0}	(-)80	V
Collector-to-Emitter Voltage	V_{CEO}	(-)60	V
Emitter-to-Base Voltage	V_{EBO}	(-)4	V
Collector Current	I_C	(-)800	mA
Peak Collector Current	i_{cp}	(-)1	A
Collector Dissipation	P_C	1.5	W
		$T_c=50^\circ C$	15
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

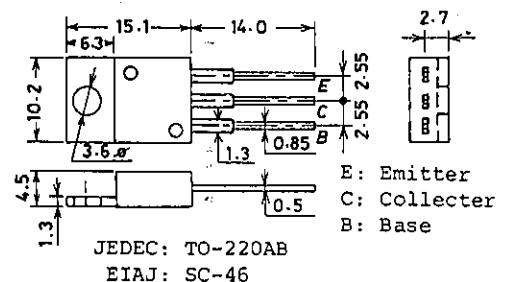
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)60V, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)2V, I_C=0$			(-)1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE}=(-)10V, I_C=(-)50mA$	40*		320*	
	$h_{FE}(2)$	$V_{CE}=(-)10V, I_C=(-)400mA$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)100mA$		800		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$			0.6	V
					(-0.8)	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$			(-)1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)100\mu A, I_C=0$	(-)4			V
Output Capacitance	c_{ob}	$V_{CB}=(-)30V, f=1MHz$		3.5(5.3)		pF
Reverse Transfer Capacitance	c_{re}	$V_{CB}=(-)30V, f=1MHz$		3.0(4.7)		pF

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

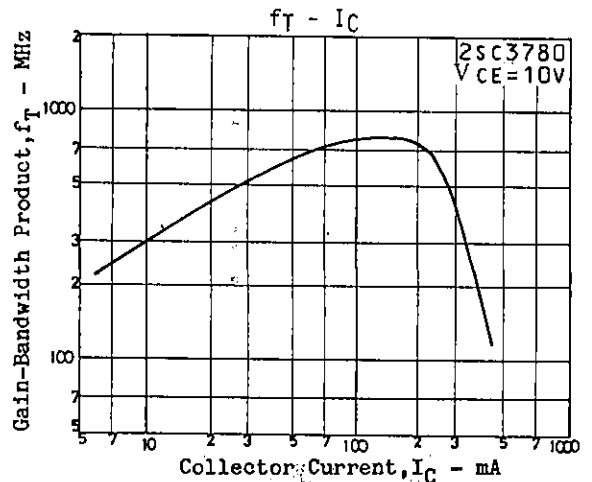
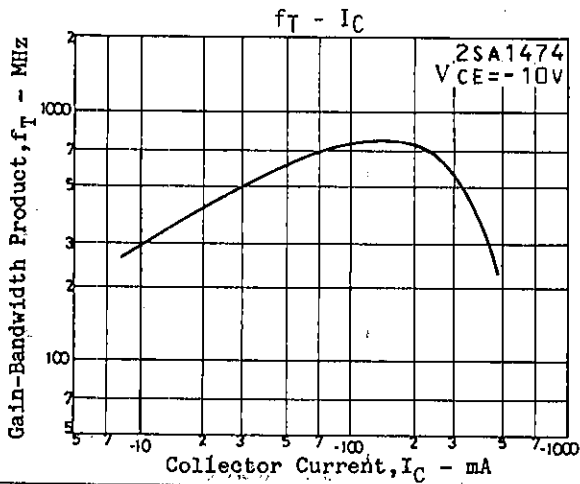
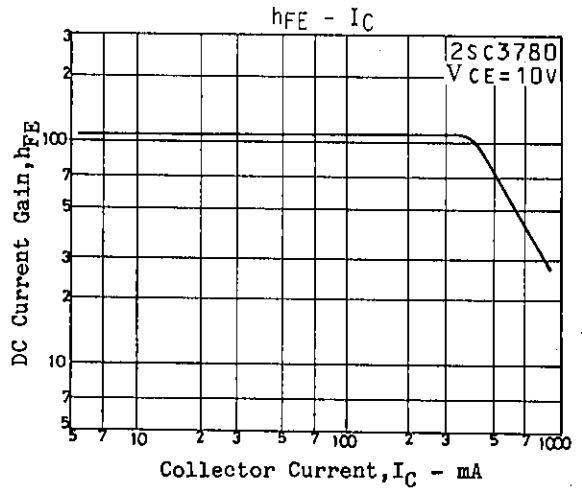
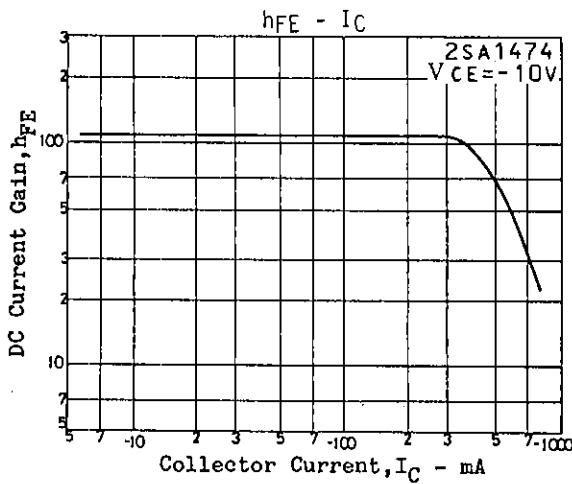
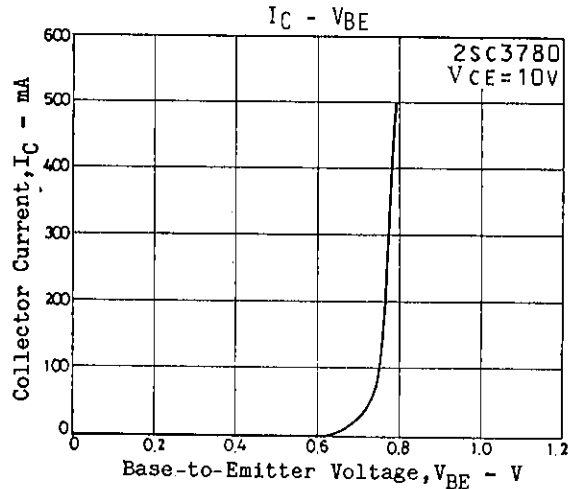
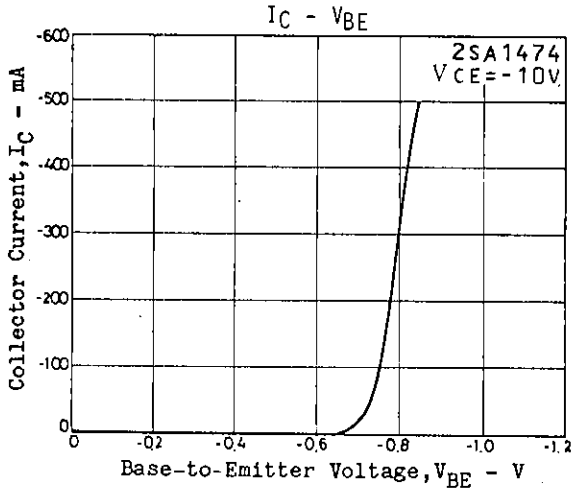
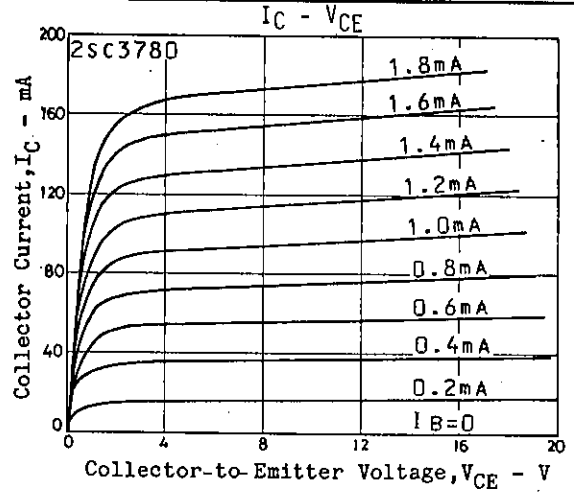
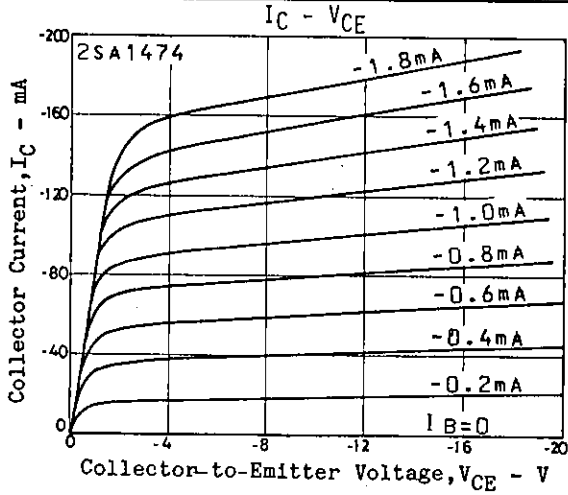
40	C	80	60	D	120
100	E	200	160	F	320

Package Dimensions 2010A

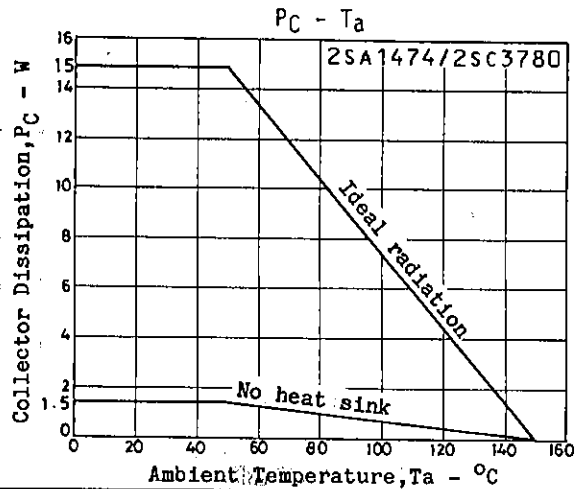
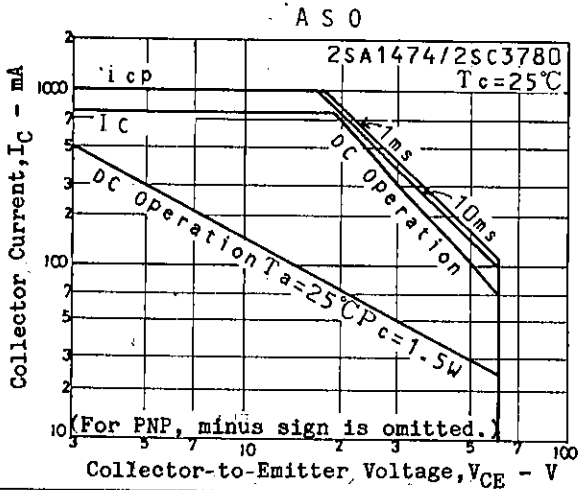
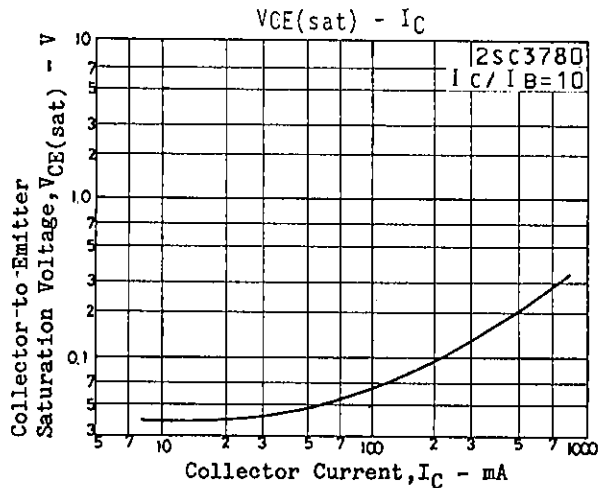
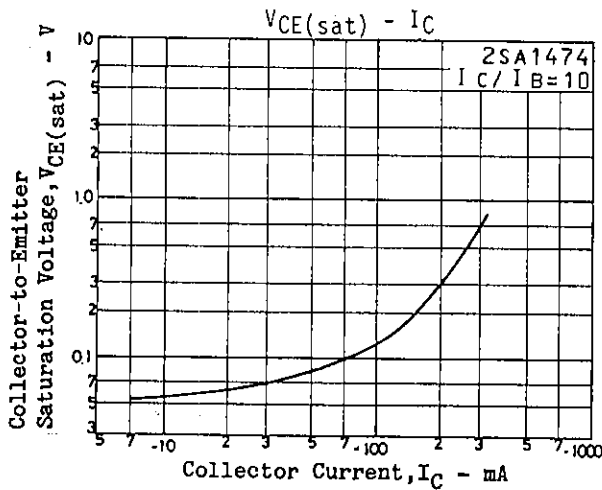
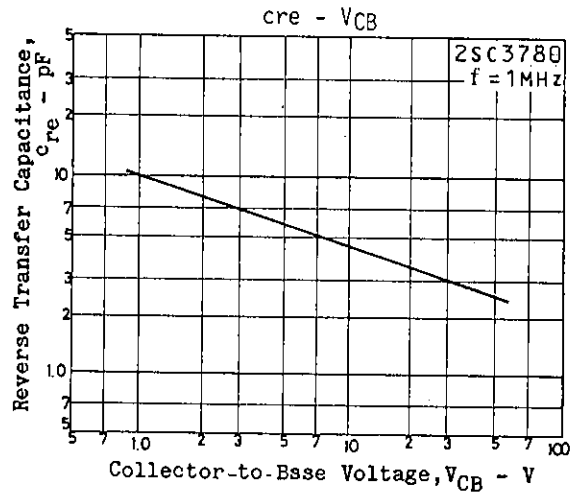
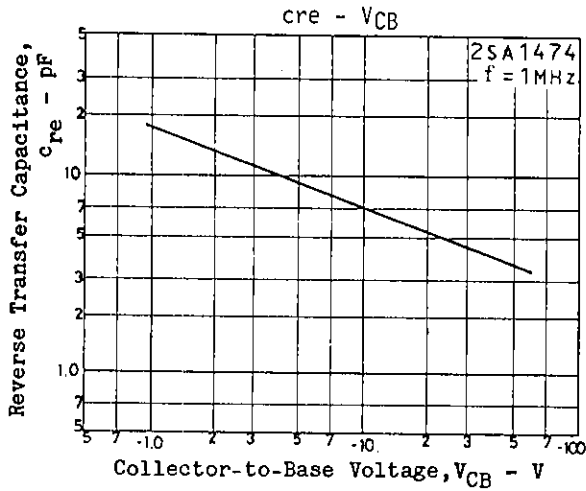
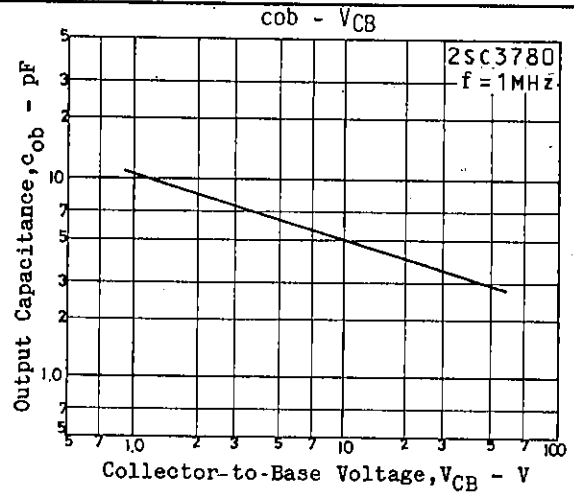
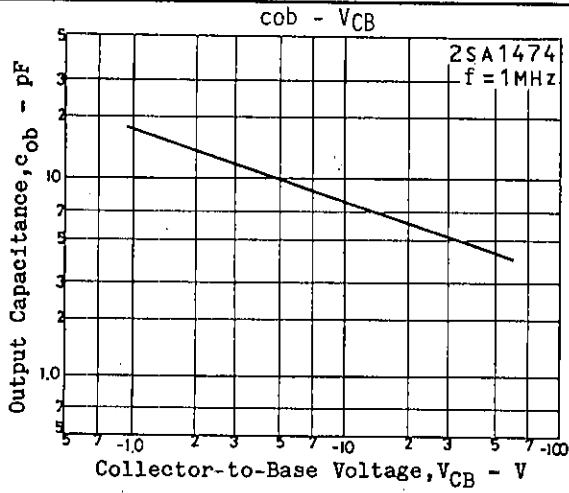
(unit: mm)



2SA1474/2SC3780



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