

SANYO

No.2527A

2SA1475/2SC3781

PNP/NPN Epitaxial Planar 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=500MHz)
- . High breakdown voltage ($V_{CEO} \geq 120V$)
- . Small reverse transfer capacitance and excellent HF response ($c_{re}=2.6pF$ (NPN), 3.9pF(PNP))
- . Complementary PNP and NPN types
- . Adoption of FBET process

(): 2SA1475

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-)120	V
Collector-to-Emitter Voltage	V_{CEO}	(-)120	V
Emitter-to-Base Voltage	V_{EBO}	(-)4	V
Collector Current	I_C	(-)400	mA
Peak Collector Current	i_{cp}	(-)600	mA
Collector Dissipation	P_C	1.5	W
		15	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to 150	$^\circ C$

 $T_c=50^\circ C$ **Electrical Characteristics at $T_a=25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)80V, I_E=0$		(-)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*	
	$h_{FE}(2)$	$V_{CE}=(-)10V, I_C=(-)250mA$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		500		MHz
Collector to Emitter	$V_{CE(sat)}$	$I_C=(-)70mA, I_B=(-)7mA$			0.6	V
Saturation Voltage					(-0.8)	V

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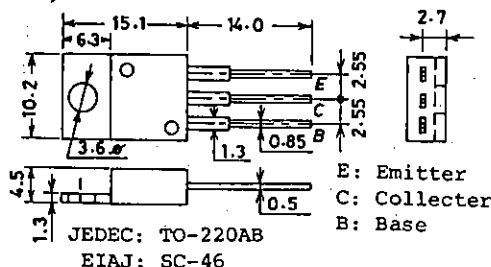
*: The 2SA1475/2SC3781 are classified by 50mA h_{FE} as follows:

40	C	80	60	D	120
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100	E	200	160	F	320
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Package Dimensions 2010A

(unit: mm)

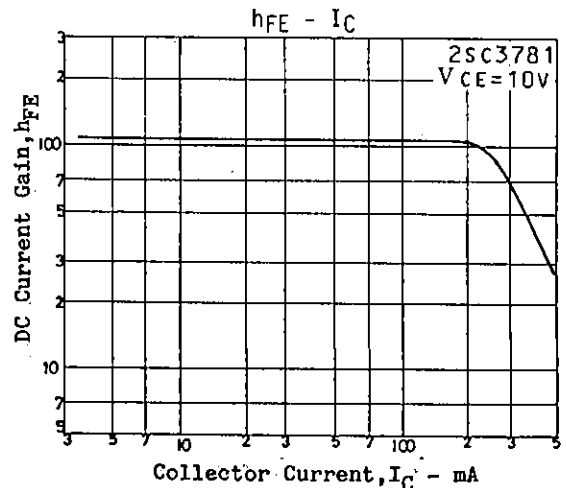
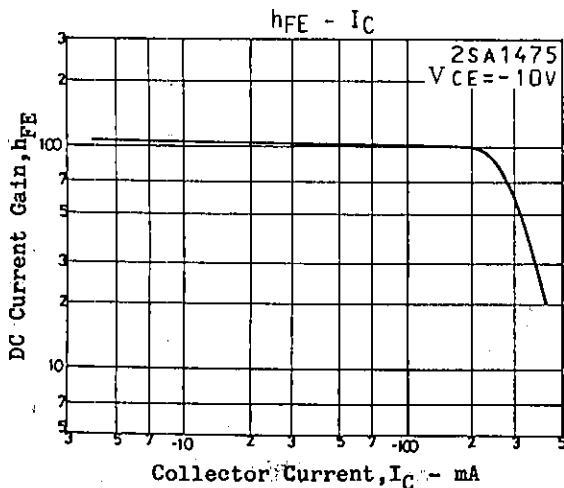
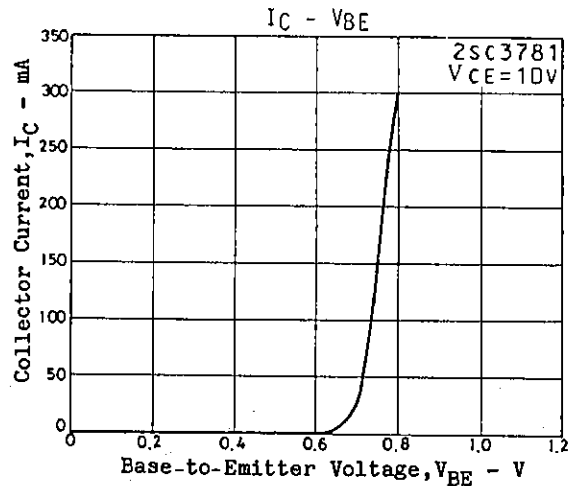
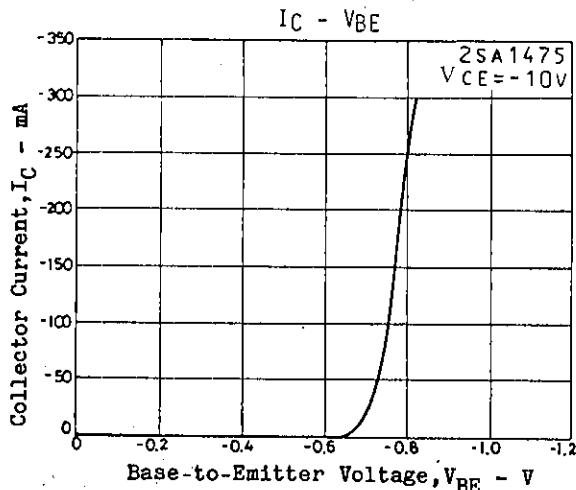
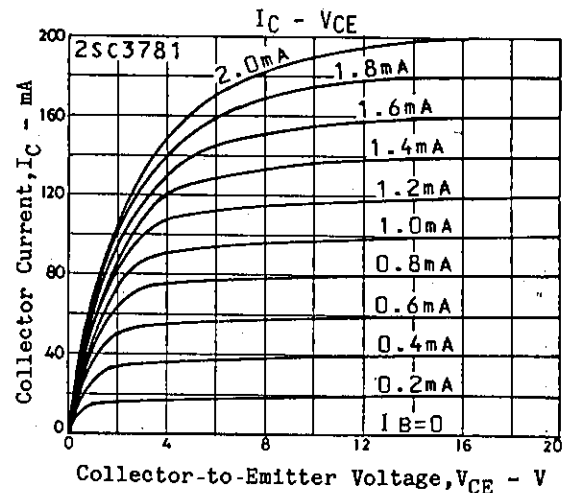
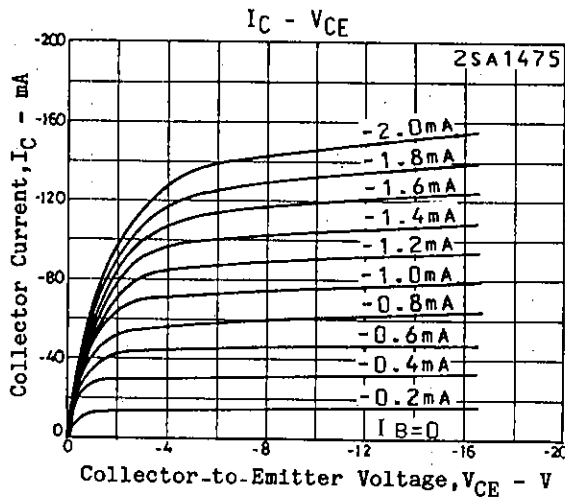


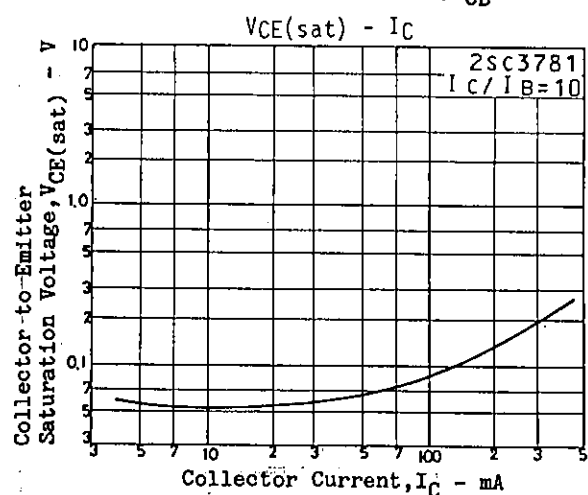
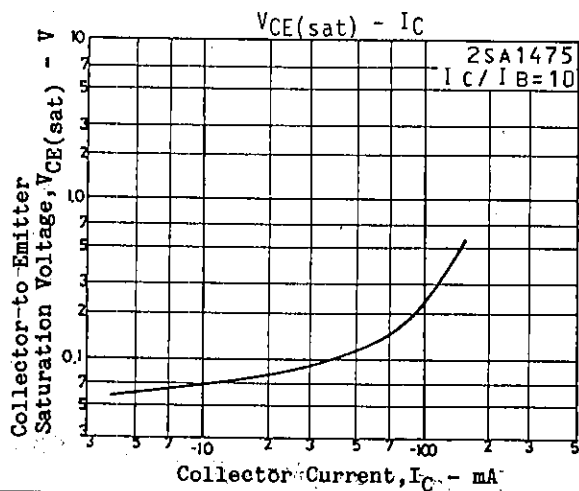
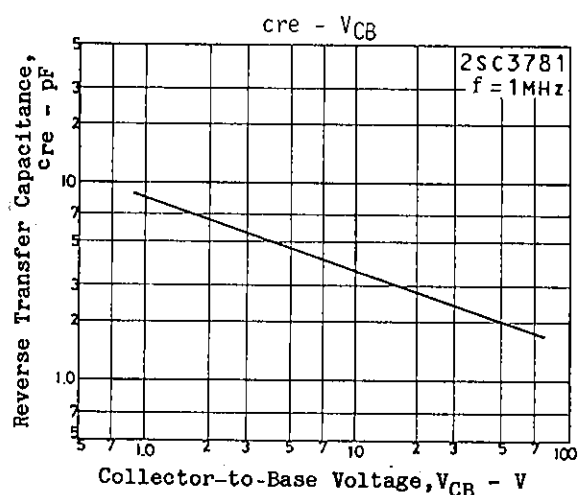
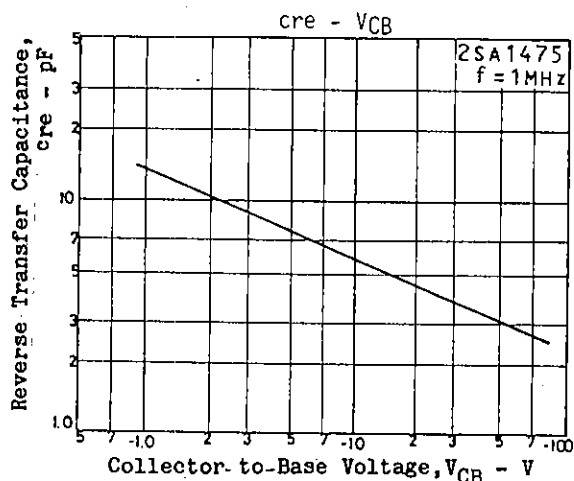
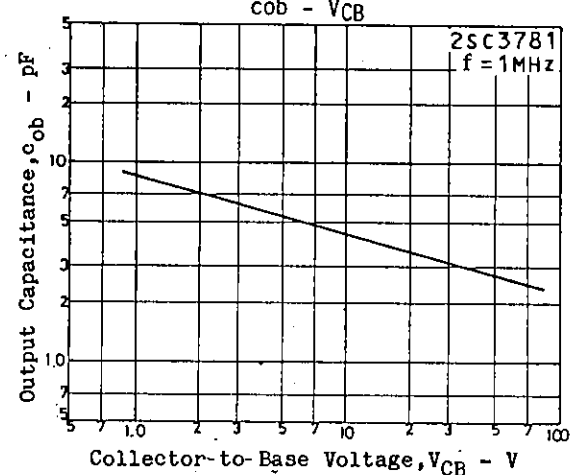
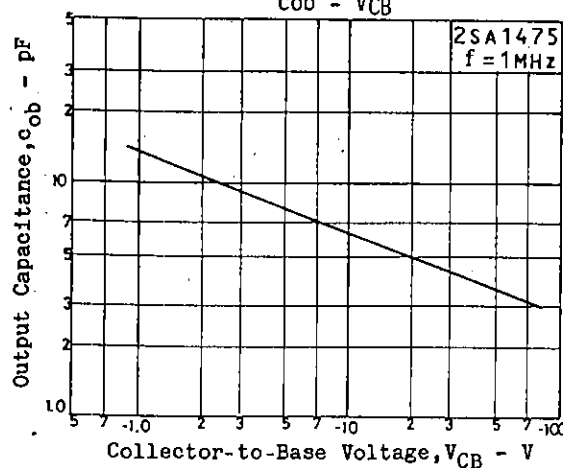
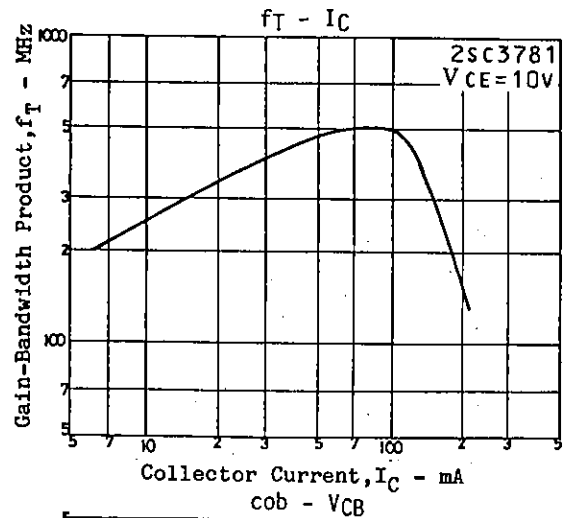
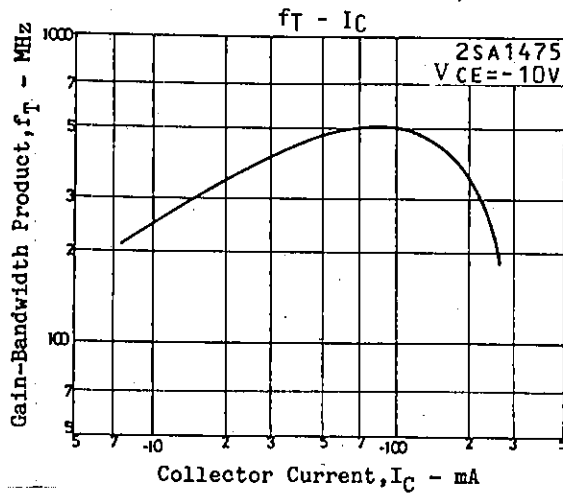
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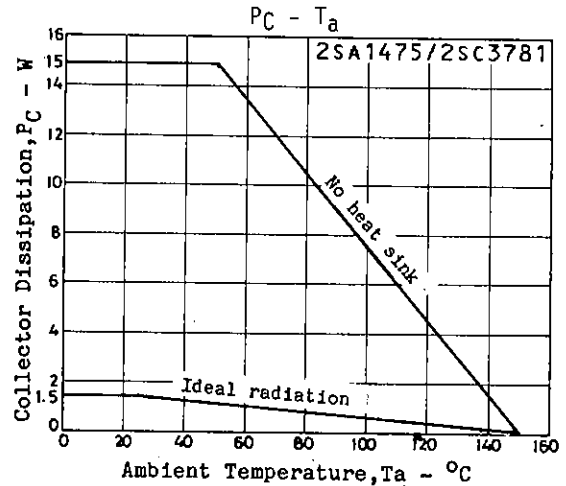
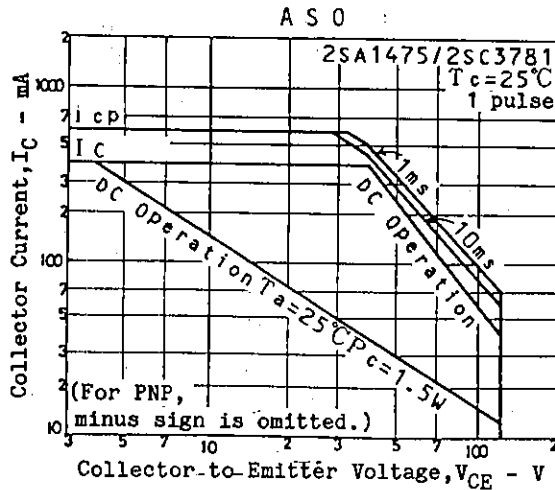
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Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)70mA, I_E=(-)7mA$	min typ max	unit
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)120	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)120	V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)100\mu A, I_C=0$	(-)4	V
Output Capacitance	c_{ob}	$V_{CB}=(-)30V, f=1MHz$	3.0(4.4)	pF
Reverse Transfer Capacitance	c_{re}	$V_{CB}=(-)30V, f=1MHz$	2.6(3.9)	pF







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