



2SA1476/2SC3782

Ultrahigh-Definition CRT Display Video Output Applications

Applications

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

Features

- High f_T (f_T typ=400MHz).
- High breakdown voltage ($V_{CEO} \geq 200V$).
- Small reverse transfer capacitance and excellent high frequency characteristic : $C_{re}=2.1pF$ (NPN), 2.6pF (PNP).
- Complementary PNP and NPN types.
- Adoption of FBET process.

() : 2SA1476

Specifications

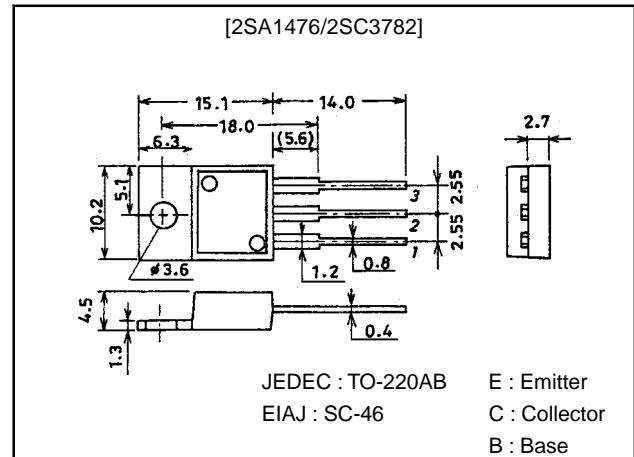
Absolute Maximum Ratings at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)200	V
Collector-to-Emitter Voltage	V_{CEO}		(-)200	V
Emitter-to-Base Voltage	V_{EBO}		(-)4	V
Collector Current	I_C		(-)200	mA
Peak Collector Current	I_{CP}		(-)300	mA
Collector Dissipation	P_C		1.5	W
		$T_c=50^\circ C$	15	W
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Package Dimensions

unit:mm

2010C



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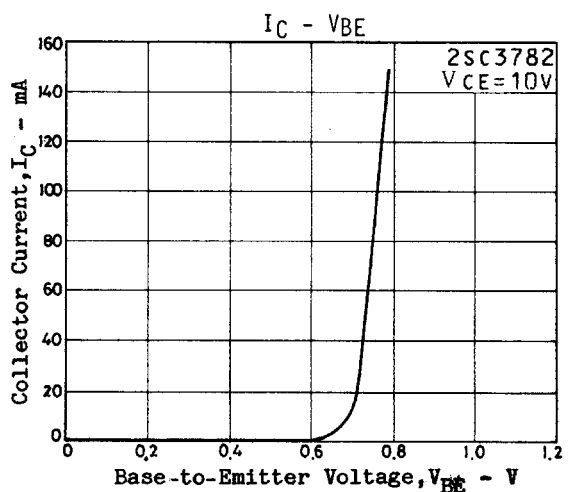
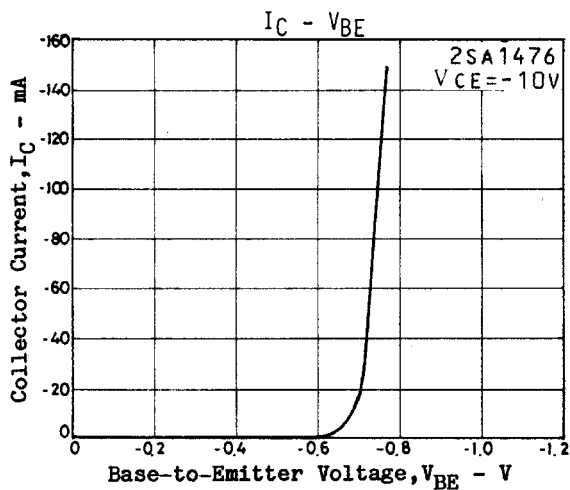
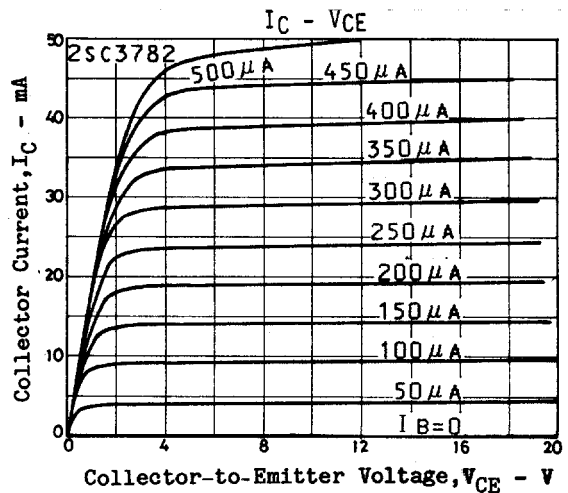
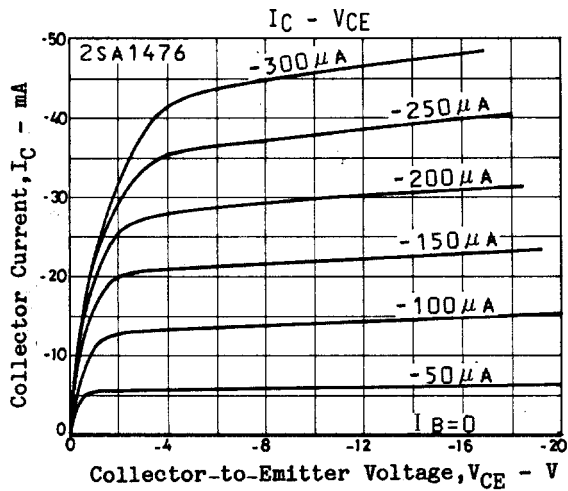
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Electrical Characteristics at $T_a = 25^\circ\text{C}$

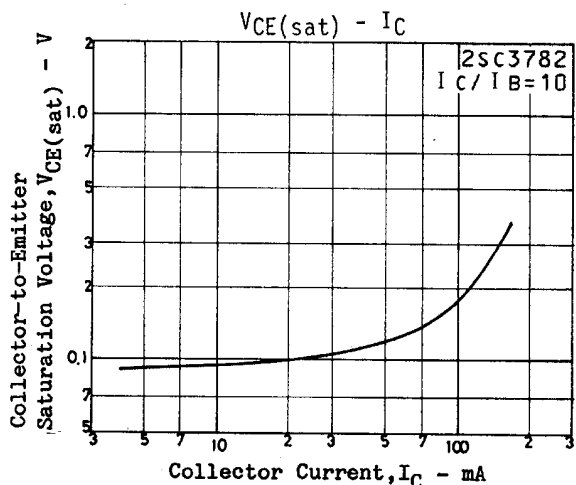
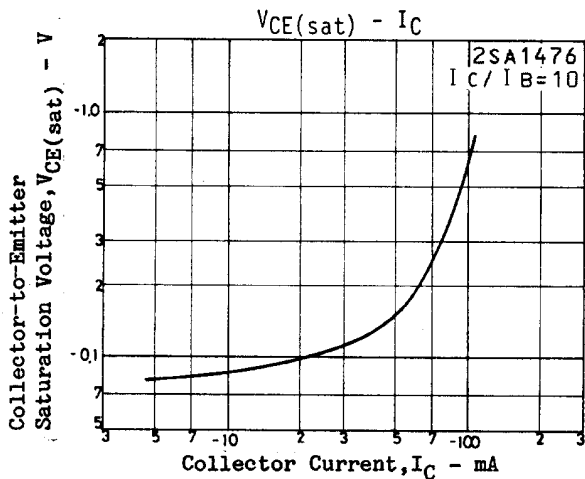
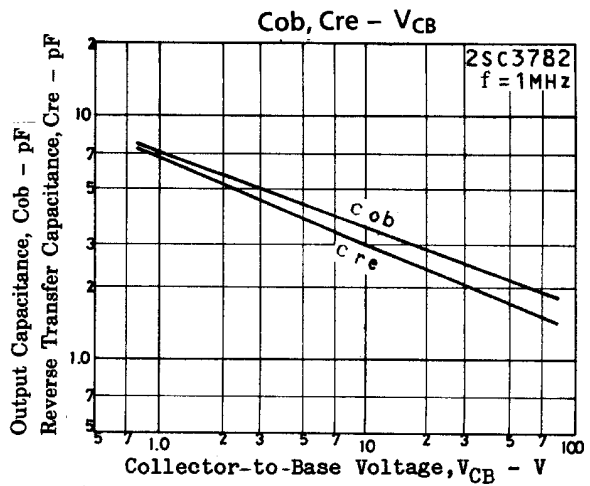
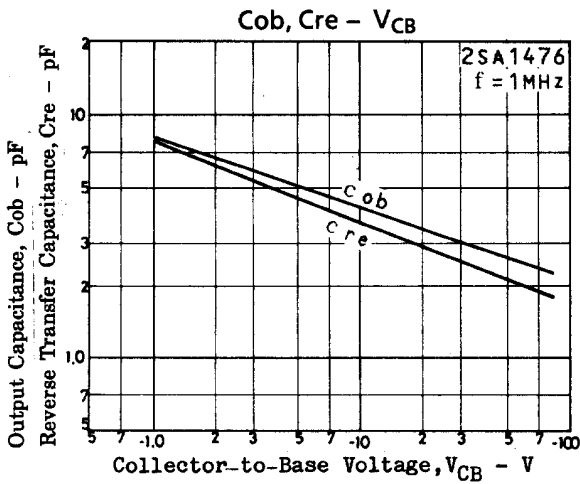
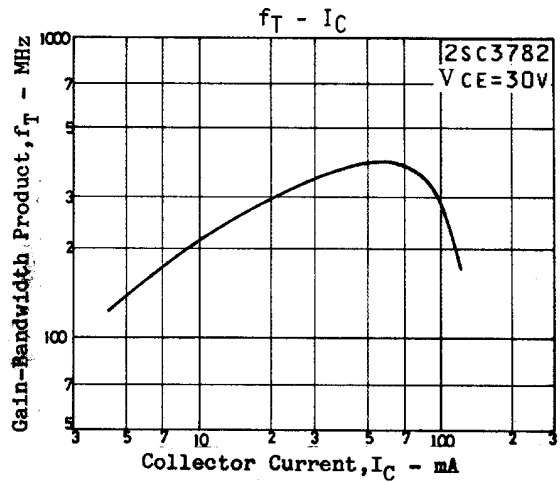
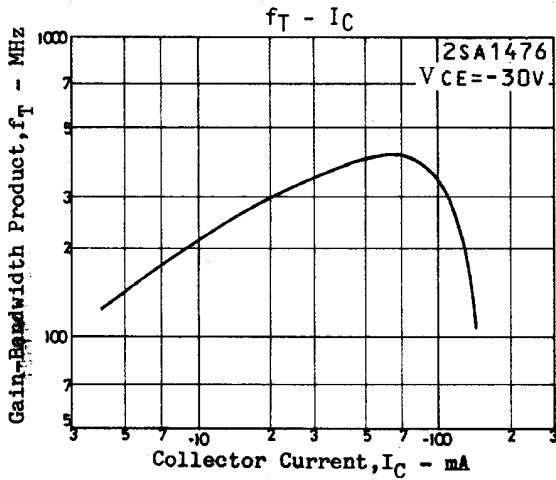
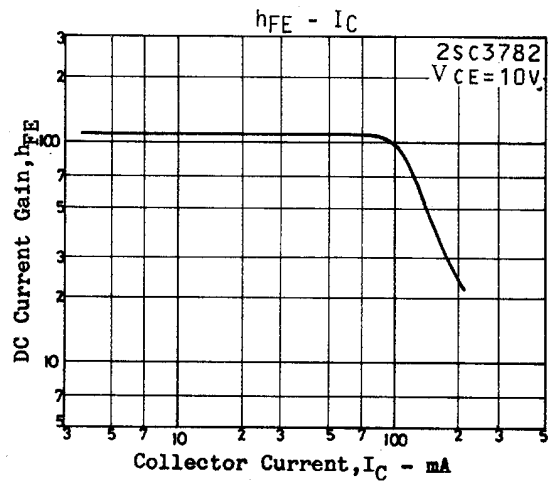
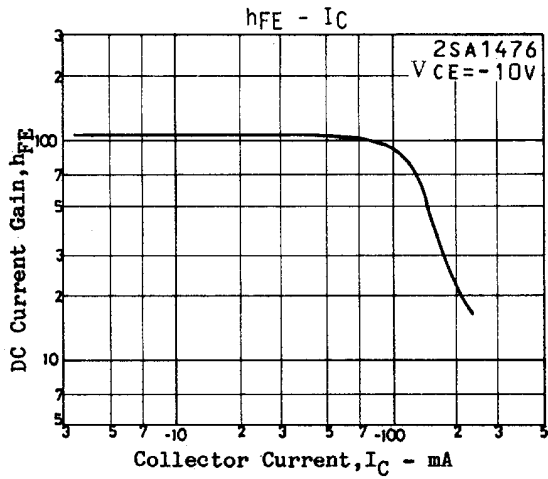
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)150\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)2\text{V}, I_C=0$			(-)1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)10\text{V}, I_C=(-)10\text{mA}$	40*		320*	
	h_{FE2}	$V_{CE}=(-)10\text{V}, I_C=(-)100\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)30\text{V}, I_C=(-)50\text{mA}$		400		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50\text{mA}, I_B=(-)5\text{mA}$			0.6	V
					(-)0.8	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)50\text{mA}, I_B=(-)5\text{mA}$			(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)200			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)200			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)100\mu\text{A}, I_C=0$	(-)4			V
Output Capacitance	C_{ob}	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		2.6		pF
				(3.1)		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=(-)30\text{V}, f=1\text{MHz}$		2.1		pF
				(2.6)		pF

* : The 2SA1476/2SC3782 are classified by 10mA h_{FE} as follows :

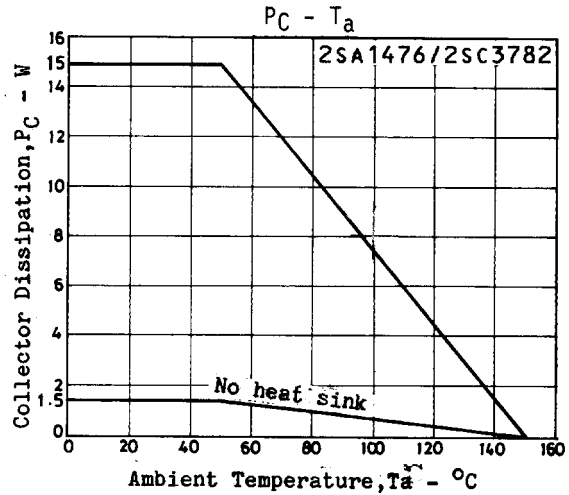
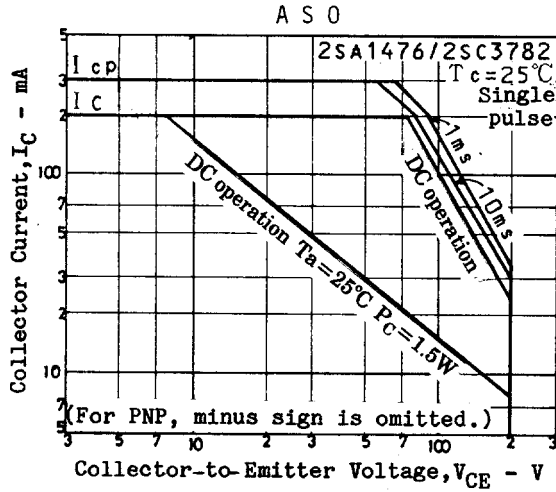
40	C	80	60	D	120	100	E	200	160	F	320
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2SA1476/2SC3782



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