



2SA1371/2SC3468

High-Definition CRT Display, Video Output Applications

Use

- Color TV chroma output and high breakdown voltage driver.

Features

- High breakdown voltage : $V_{CEO} \geq 300V$.
- Small reverse transfer capacitance and excellent high frequency characteristic
: $C_{re} = 1.8pF$ (NPN), $2.3pF$ (PNP).
- Adoption of MBIT process.

() : 2SA1371

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-300)	V
Collector-to-Emitter Voltage	V_{CEO}		(-300)	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 $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)200V, I_E = 0$			(-0.1)	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4V, I_C = 0$			(-0.1)	μA
DC Current Gain	h_{FE}	$V_{CE} = (-)10V, I_C = (-)10mA$	40*		320*	
Gain-Bandwidth Product	f_T	$V_{CE} = (-)30V, I_C = (-)10mA$		150		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(-0.6)	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(-1.0)	V

* : The 2SA1371/2SC3468 are classified by 10mA h_{FE} as follows :

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Rank	C	D	E	F
h_{FE}	40 to 80	60 to 120	100 to 200	160 to 320

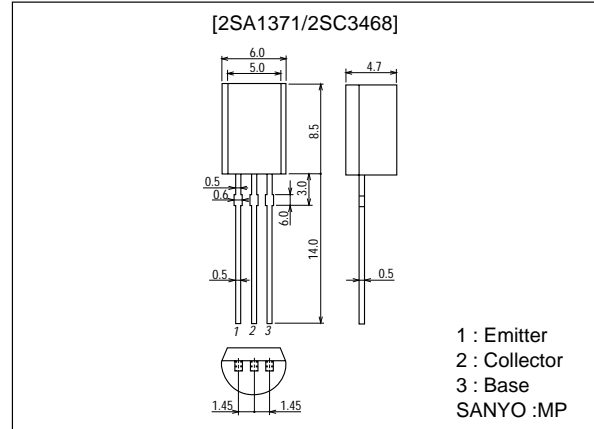
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Package Dimensions

unit:mm

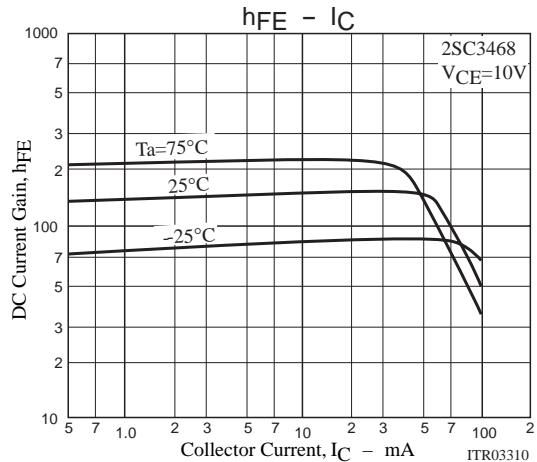
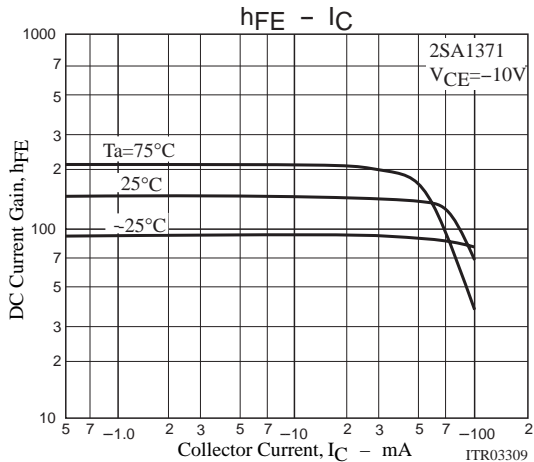
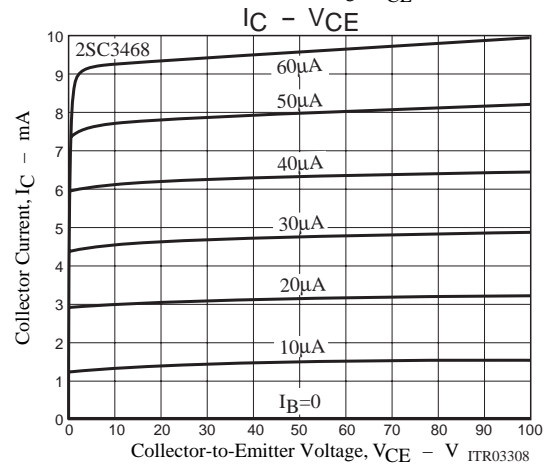
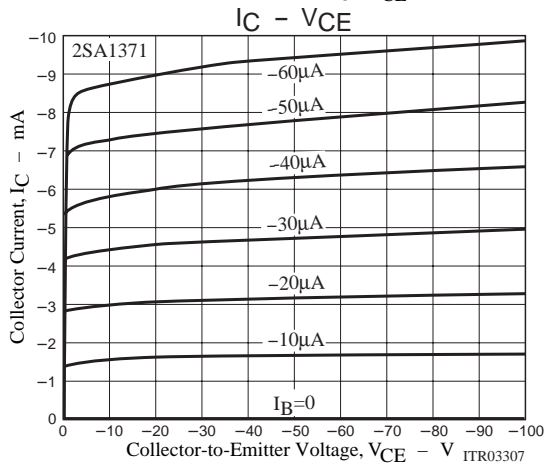
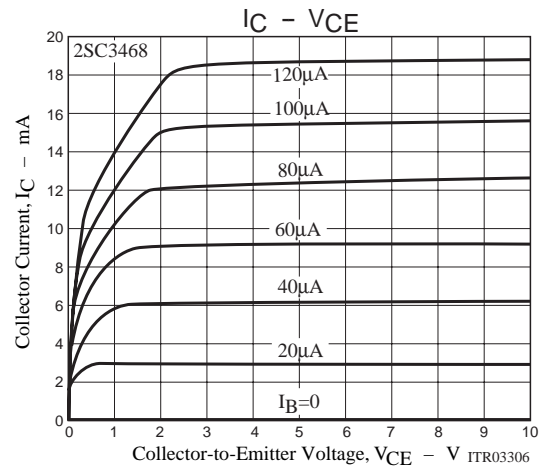
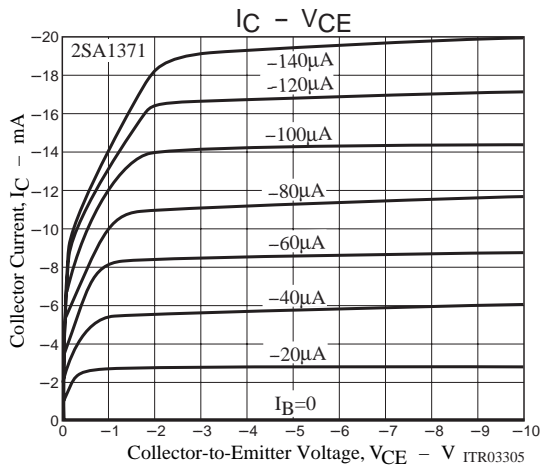
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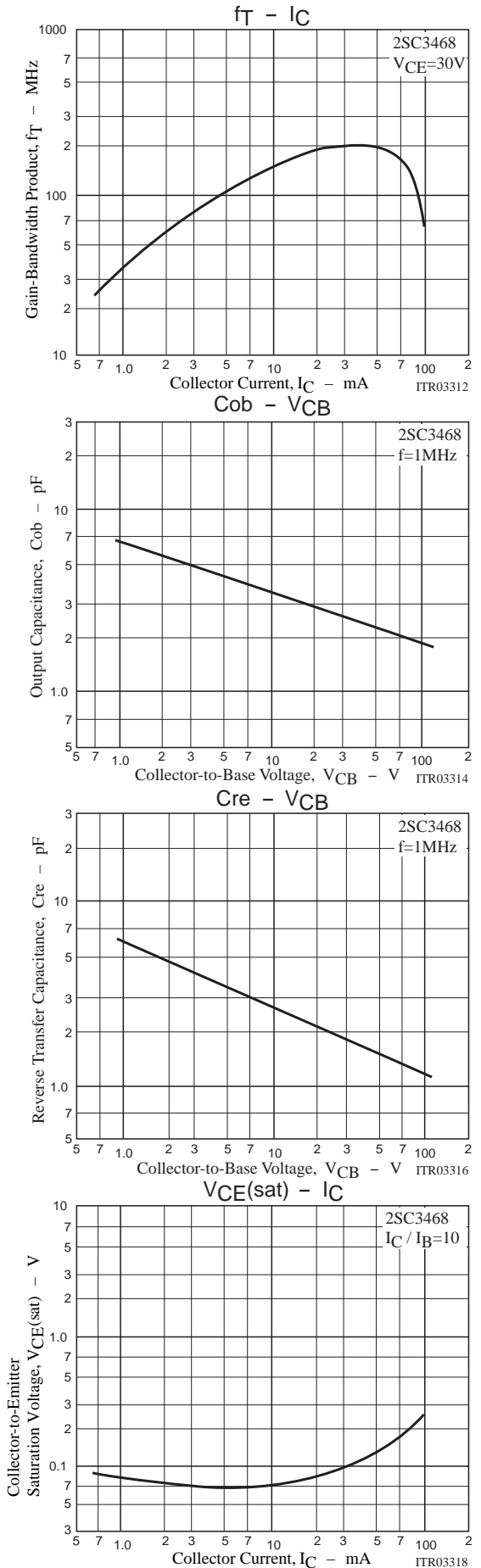
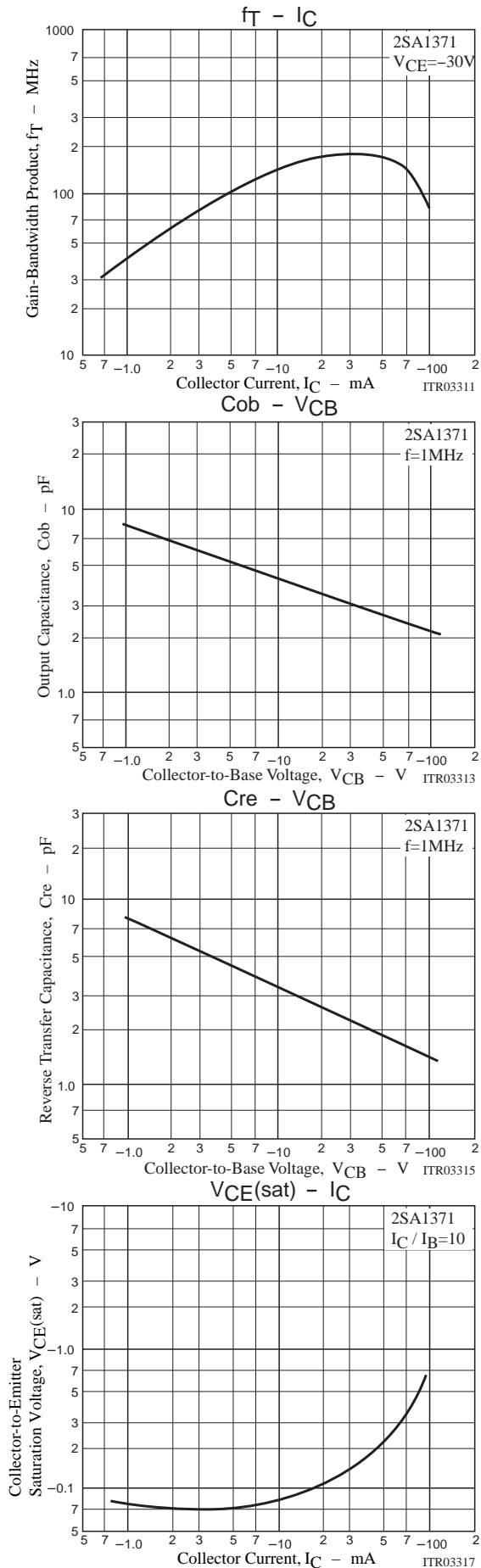
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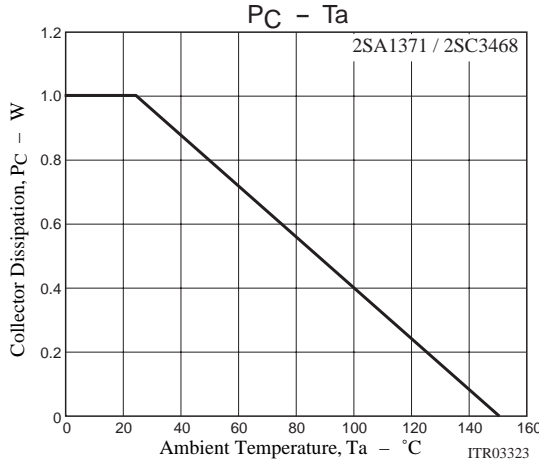
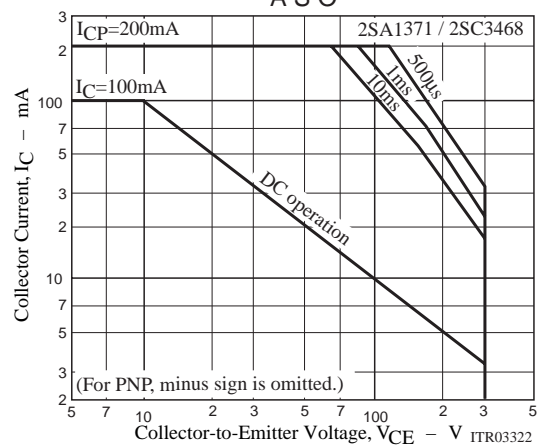
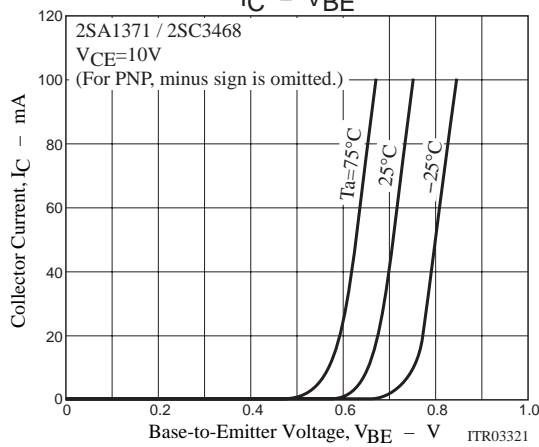
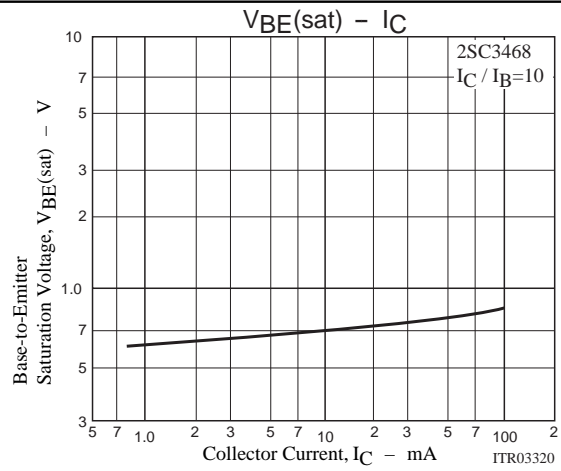
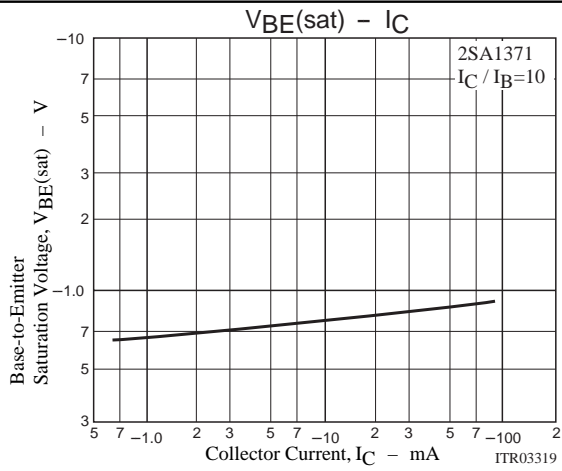
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-)300			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)300			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-)5			V
Output Capacitance	C_{ob}	$V_{CB}=(-)30V, f=1MHz$		2.6		pF
				(3.1)		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=(-)30V, f=1MHz$		1.8		pF
				(2.3)		pF



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