

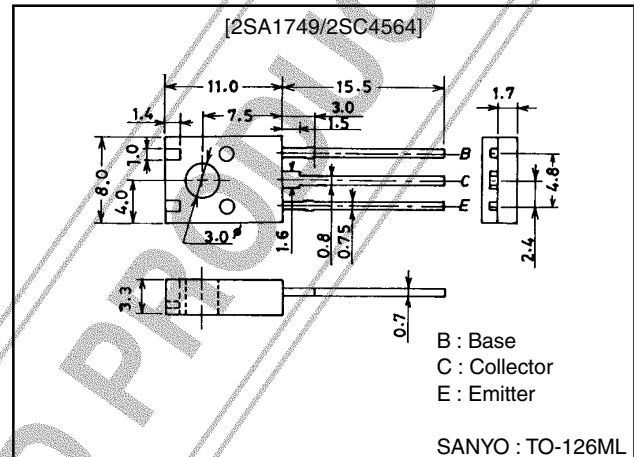
**SANYO****2SA1749/2SC4564****High-Definition CRT Display  
Video Output Applications****Features**

- High  $f_T$  :  $f_T=400\text{MHz}$  (typ).
- High breakdown voltage :  $V_{CEO}\geq 200\text{V}$  min.
- High current.
- Small reverse transfer capacitance and excellent high frequency characteristics :  
 $C_{re}=3.4\text{pF}$  (NPN) ,  $4.2\text{pF}$  (PNP).
- Complementary 2SA1749 and 2SC4564 types.
- Adoption of FBET process.

**Package Dimensions**

unit:mm

2042A



() : 2SA1749

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

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	$V_{EBO}$		(-3)	V
Collector Current	$I_C$		(-300)	mA
Collector Current (Pulse)	$I_{CP}$		(-600)	mA
Collector Dissipation	$P_C$	$T_c=25^\circ\text{C}$	1.3	W
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

**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)	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-2\text{V})$ , $I_C=0$			(-1.0)	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=(-10\text{V})$ , $I_C=(-50\text{mA})$	40*		320*	
	$h_{FE2}$	$V_{CE}=(-10\text{V})$ , $I_C=(-250\text{mA})$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-30\text{V})$ , $I_C=(-100\text{mA})$		400		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=(-30\text{V})$ , $f=1\text{MHz}$		(5.0)		pF
				4.2		pF

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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

**SANYO Electric Co.,Ltd. Semiconductor Business Headquarters**

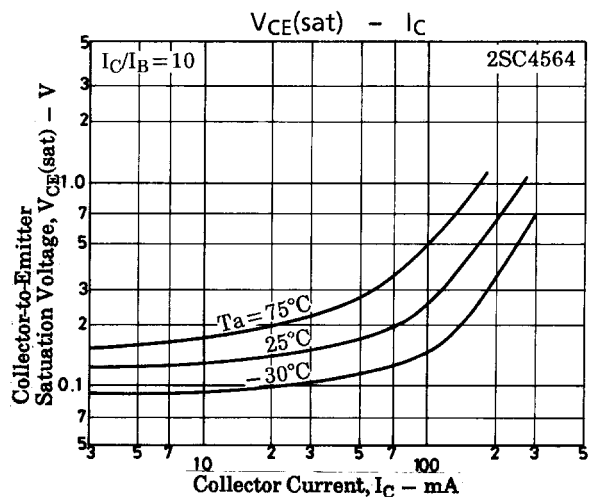
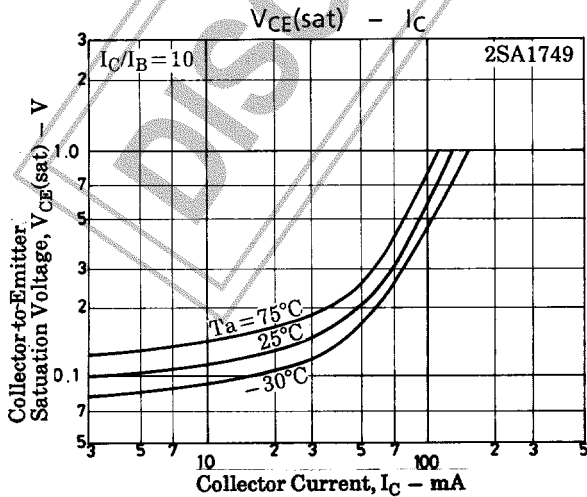
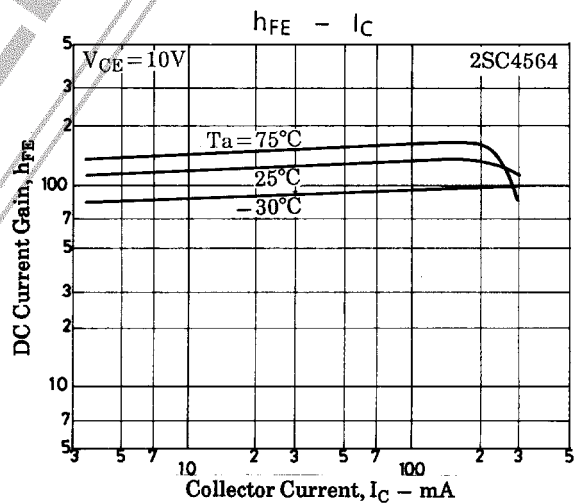
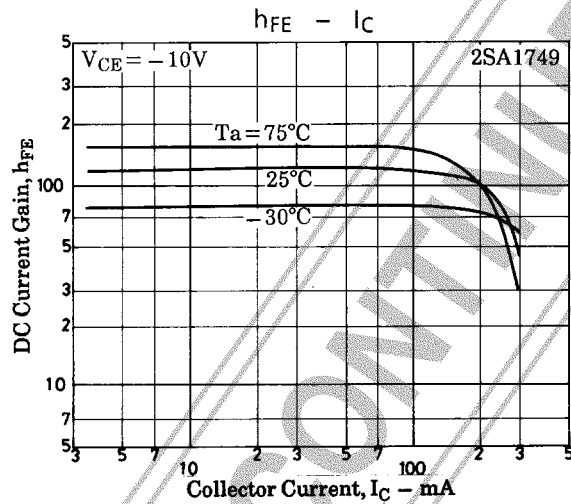
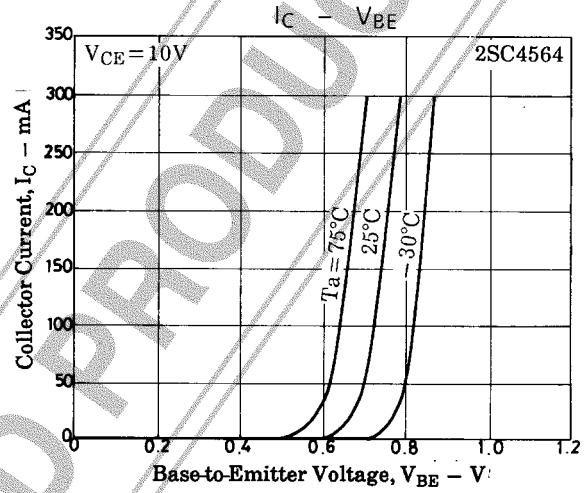
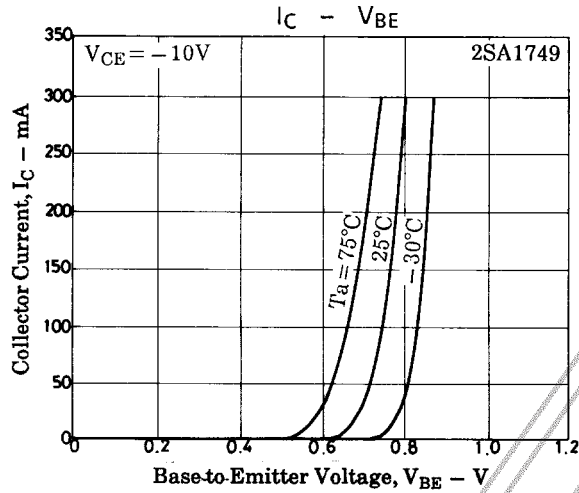
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# 2SA1749/2SC4564

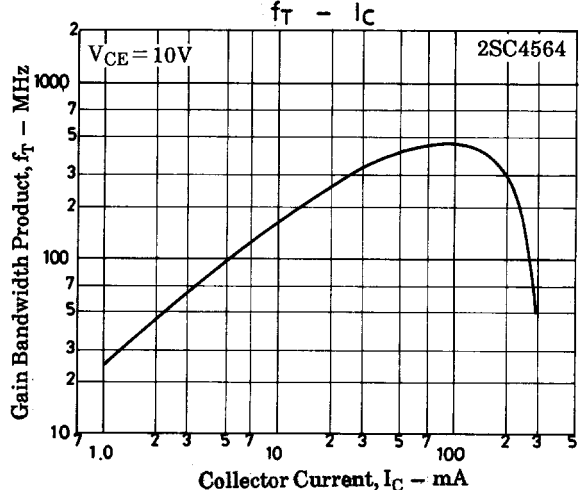
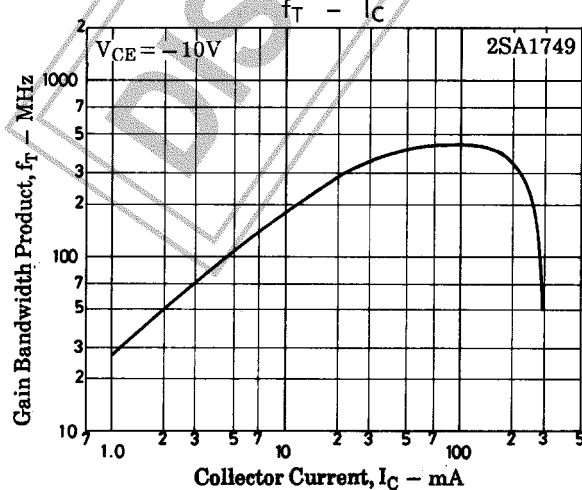
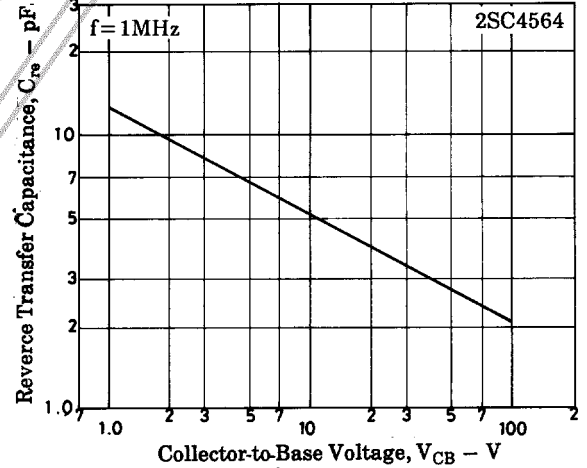
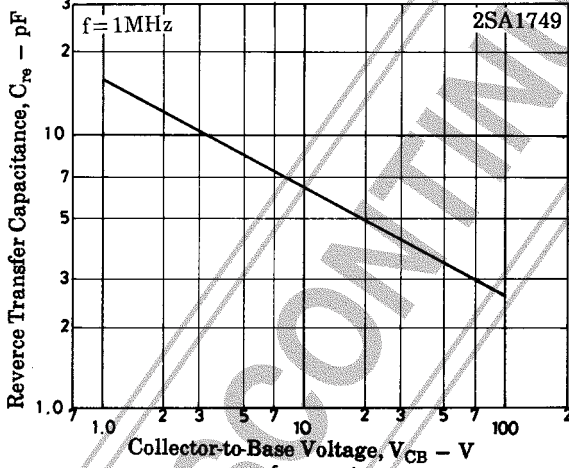
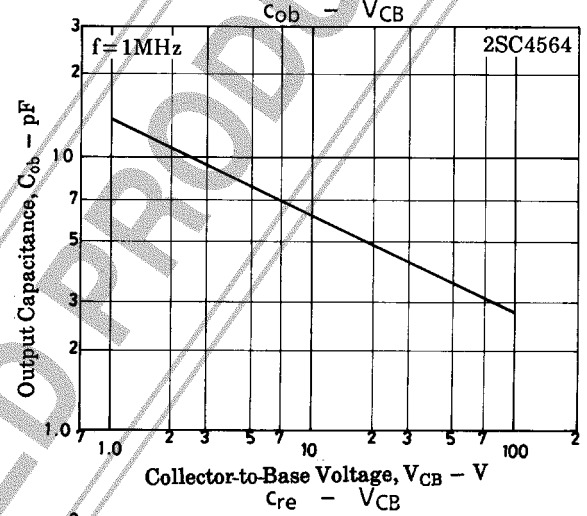
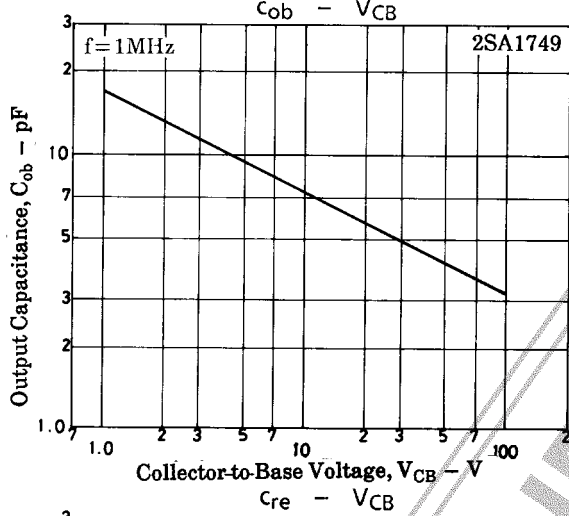
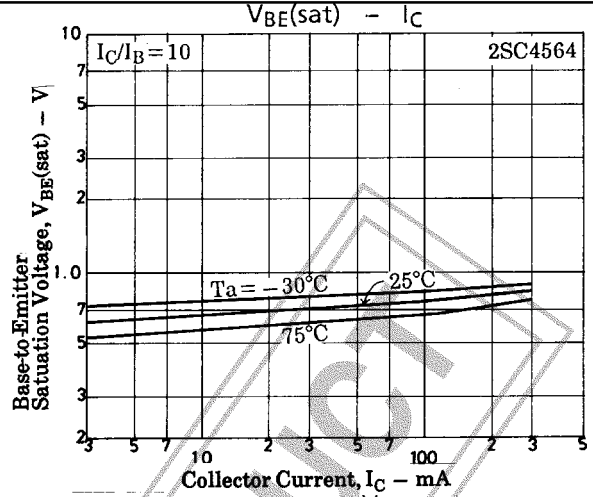
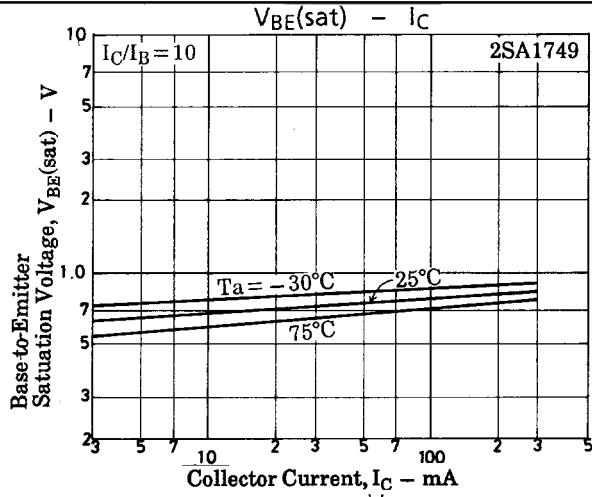
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Transfer Capacitance	$C_{re}$	$V_{CB} = (-)30V, f = 1MHz$		(4.2)		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50mA, I_B = (-)5mA$		3.4		pF
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)50mA, I_B = (-)5mA$			(-1.0)	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(-200)			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-200)			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)100\mu A, I_C = 0$	(-3)			V

\* : The 2SA1749/2SC4564 are classified by 50mA  $h_{FE}$  as follows :

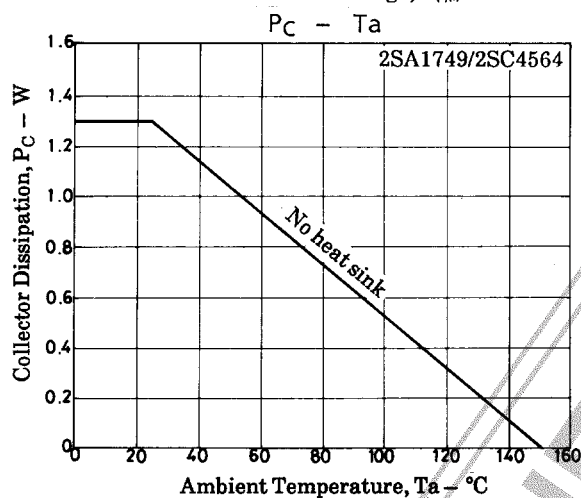
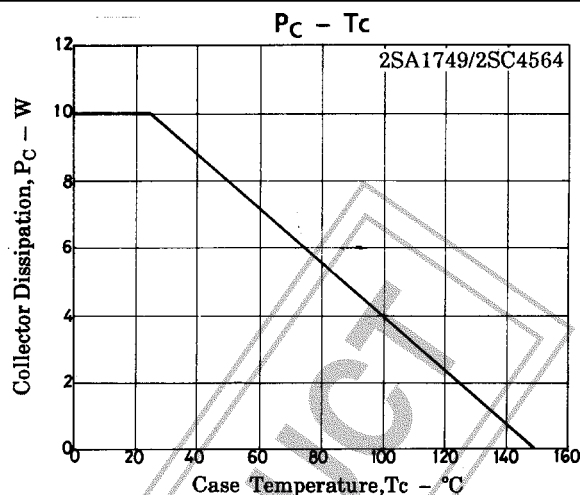
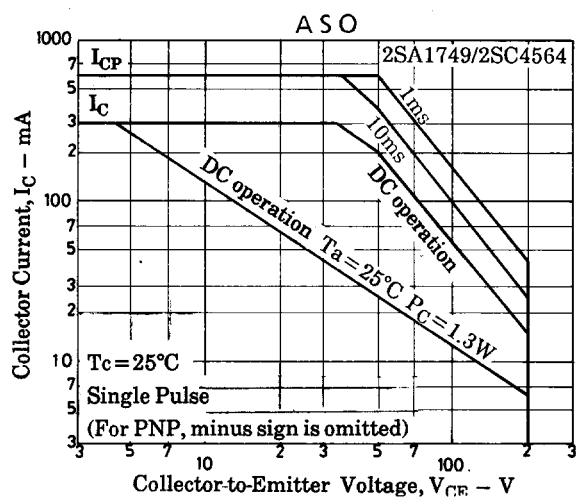
40	C	80	60	D	120	100	E	200	160	F	320
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# 2SA1749/2SC4564



## 2SA1749/2SC4564



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