



2SA1875 / 2SC4976

High-Definition CRT Display Video Output Applications

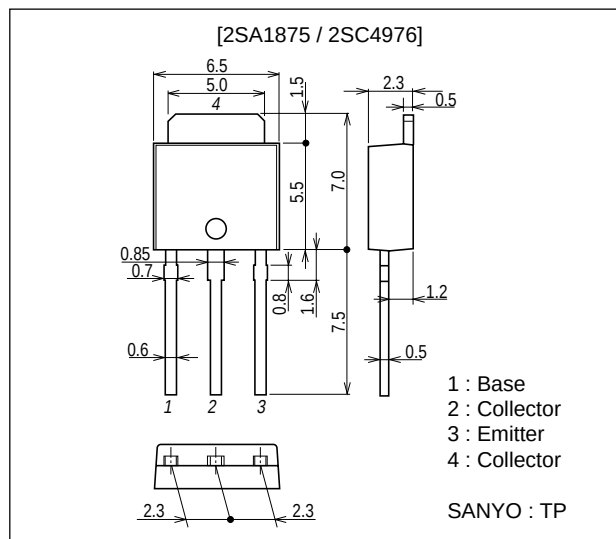
Features

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

Package Dimensions

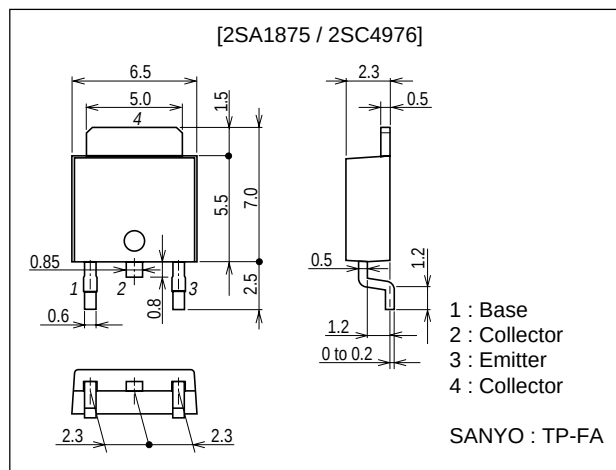
unit : mm

2045B



unit : mm

2044B



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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.

Specifications

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

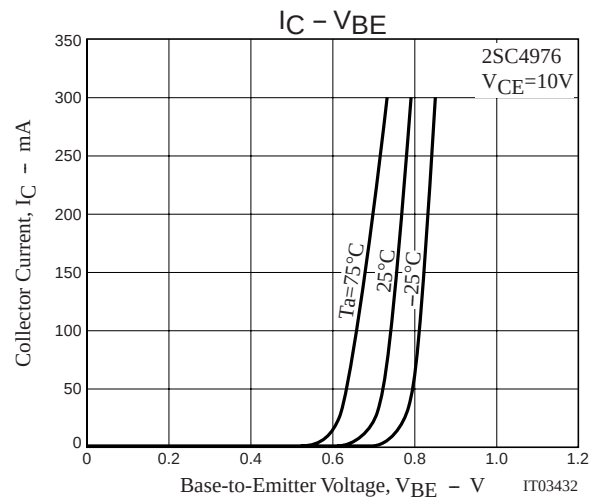
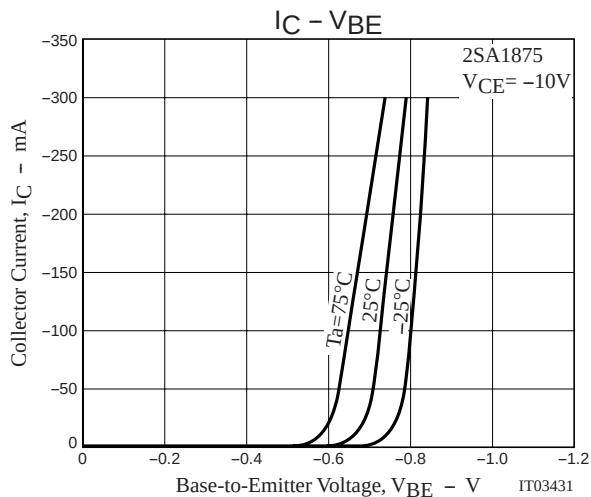
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)200	V
Collector-to-Emitter Voltage	V_{CEO}		(-)200	V
Emitter-to-Base Voltage	V_{EBO}		(-)3	V
Collector Current	I_C		(-)300	mA
Collector Current (Pulse)	I_{CP}		(-)600	mA
Base Current	I_B		(-)30	mA
Collector Dissipation	P_C		0.8	W
		$T_c=25^\circ\text{C}$	12	W
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

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

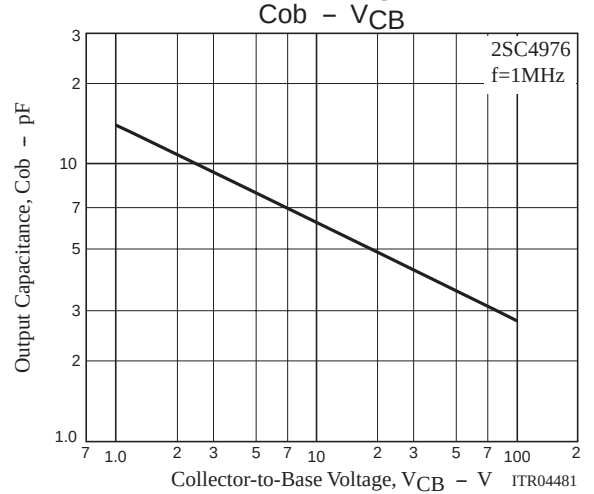
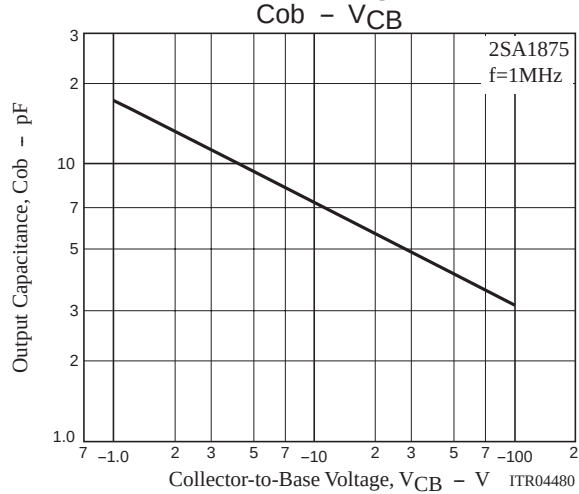
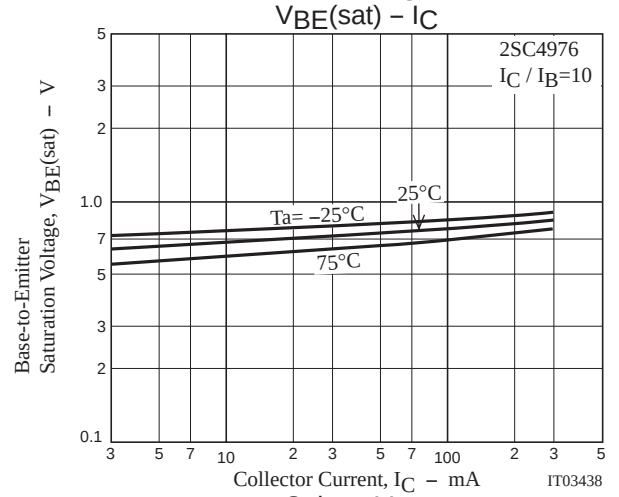
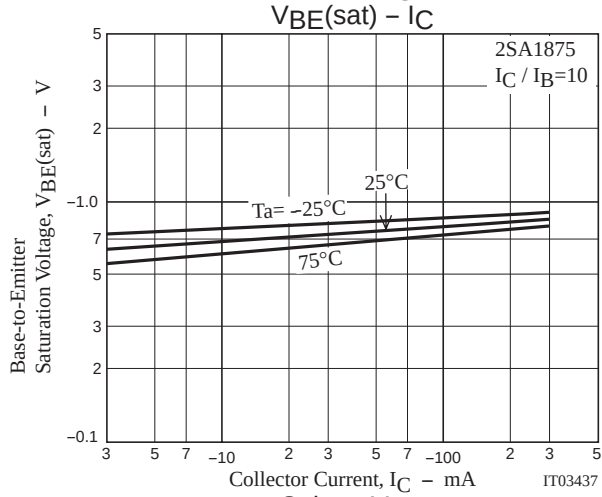
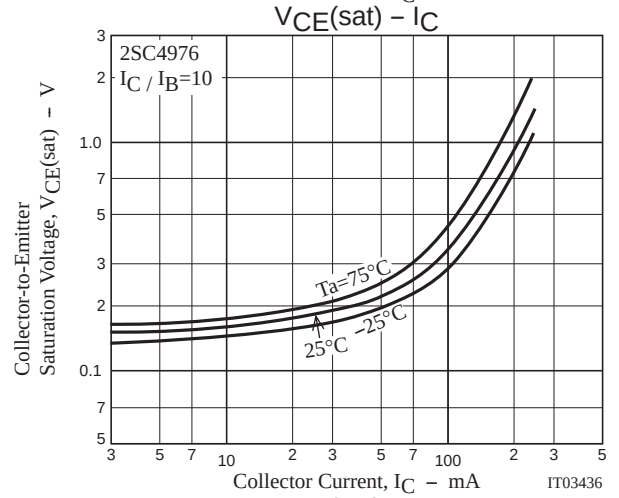
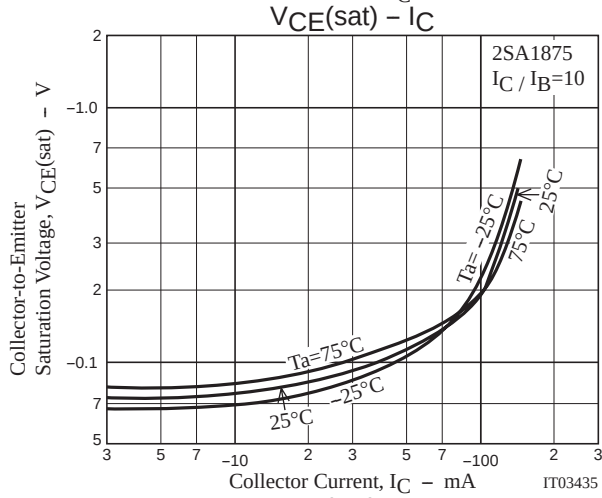
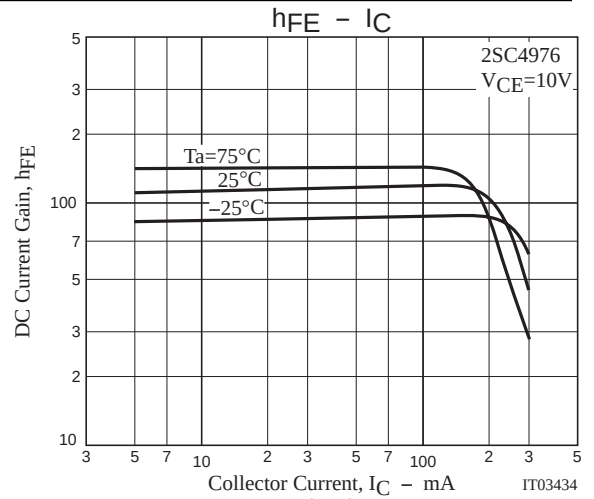
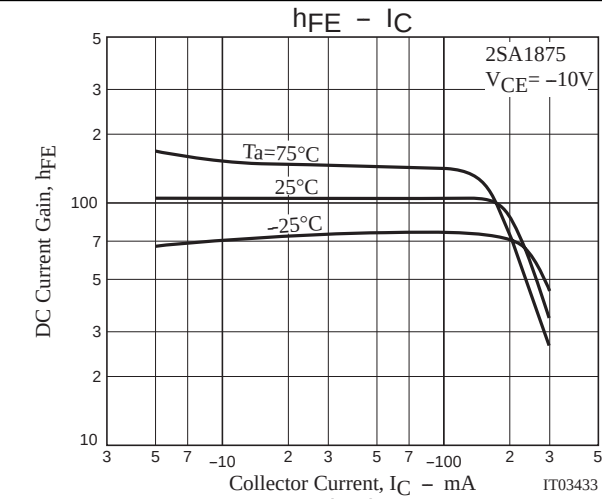
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)150\text{V}$, $I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)2\text{V}$, $I_C=0$			(-)1.0	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)10\text{V}$, $I_C=(-)50\text{mA}$	60*		320*	
	h_{FE2}	$V_{CE}=(-)10\text{V}$, $I_C=(-)250\text{mA}$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10\text{V}$, $I_C=(-)100\text{mA}$		400		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)30\text{V}$, $f=1\text{MHz}$		(5.0)4.2		pF
Reverse Transfer Capacitance	C_{re}	$V_{CB}=(-)30\text{V}$, $f=1\text{MHz}$		(4.2)3.4		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50\text{mA}$, $I_B=(-)5\text{mA}$			(-)1.0	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	$V_{(BR)EBO}$	$I_E=(-)100\mu\text{A}$, $I_C=0$	(-)3			V

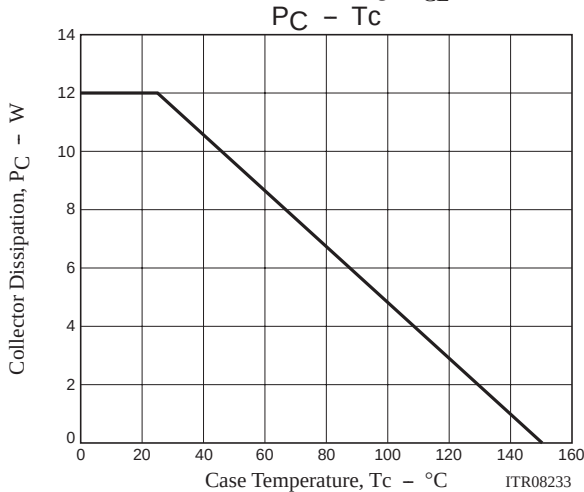
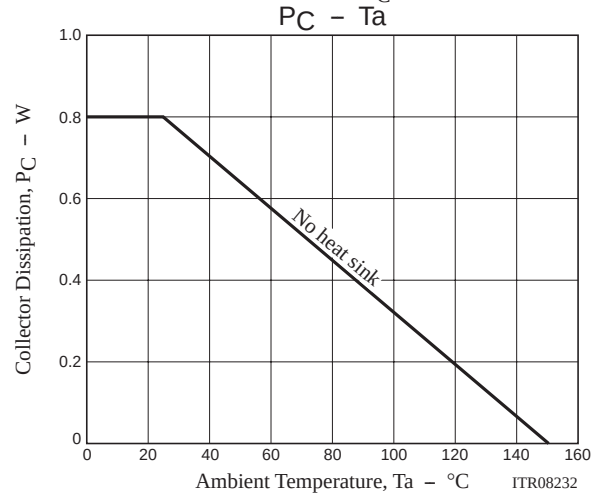
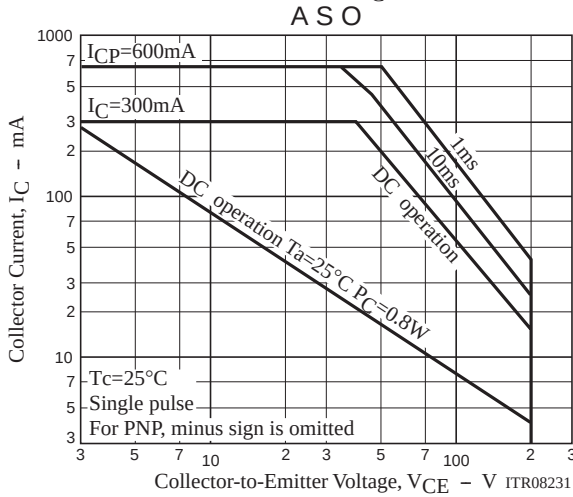
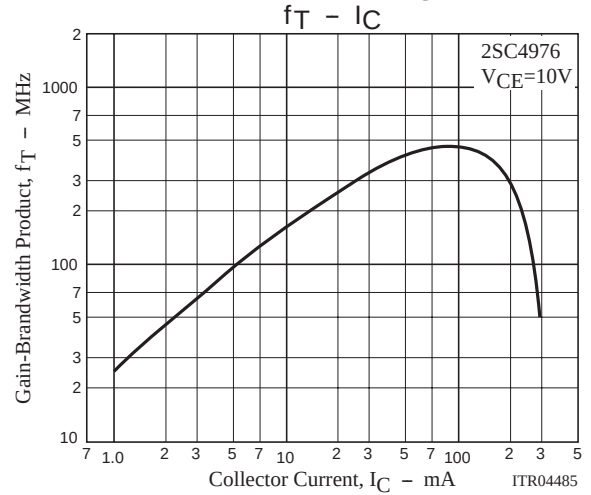
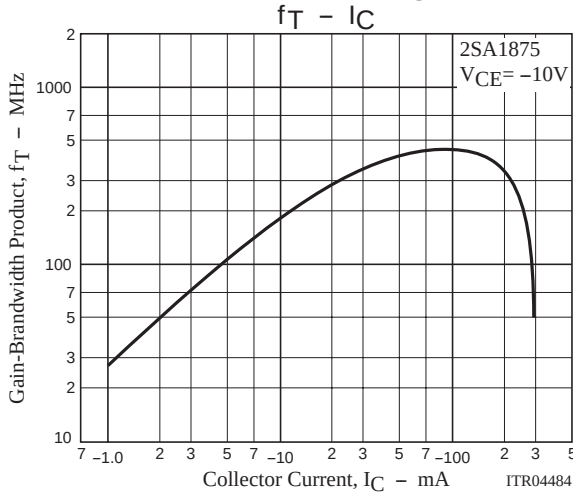
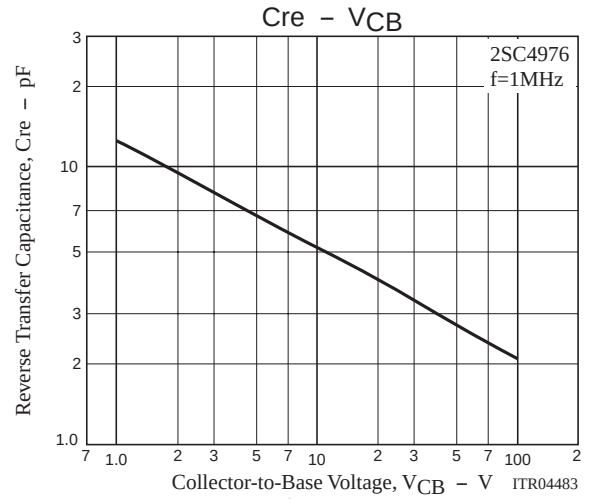
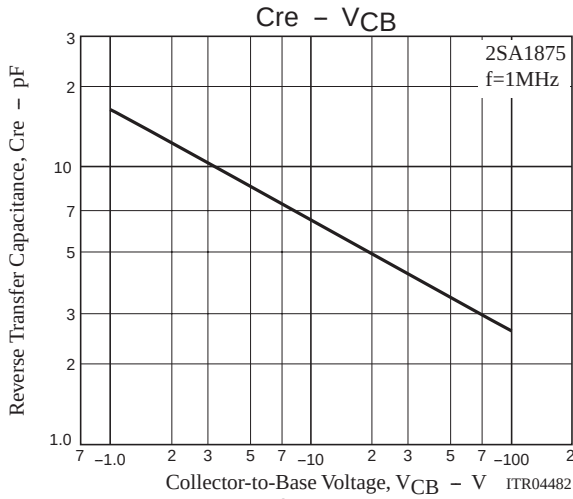
* : The 2SA1875 / 2SC4976 are classified by 50mA h_{FE} as follows

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



2SA1875 / 2SC4976





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