

<b>SANYO</b>	No.1426B	<b>2SA1381 / 2SC3503</b>
	Silicon PNP/NPN Epitaxial Planar Transistor FOR HIGH-DEFINITION CRT DISPLAY, VIDEO OUTPUT	

**Features**

- . High breakdown voltage:  $V_{CEO} \geq 300V$ .
- . Small reverse transfer capacitance and excellent high frequency characteristic  $c_{re}=1.8pF(NPN), 2.3pF(PNP) V_{CB}=30V$ .
- . Adoption of MBIT process.

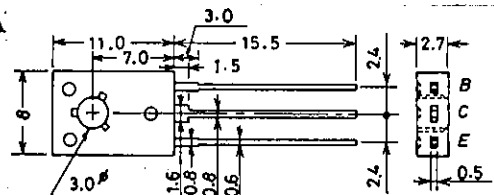
Absolute Maximum Ratings at $T_a=25^\circ C$		unit
Collector-to-Base Voltage	$V_{CBO}$	(-)300 V
Collector-to-Emitter Voltage	$V_{CEO}$	(-)300 V
Emitter-to-Base Voltage	$V_{EBO}$	(-)5 V
Collector Current	$I_C$	(-)100 mA
Peak Collector Current	$i_{cp}$	(-)200 mA
Allowable Collector Dissipation	$P_C$	1.2 W
Junction Temperature	$T_j$	7 W
Storage Temperature	$T_{stg}$	150 $^\circ C$
		-55 to +150 $^\circ C$

Electrical Characteristics at $T_a=25^\circ C$		min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)200V, I_E=0$		(-)0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4V, I_C=0$		(-)0.1	$\mu A$
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
Output Capacitance	$c_{ob}$	$V_{CB}=(-)30V, f=1MHz$		2.6 (3.1)	pF
Reverse Transfer Capacitance	$c_{re}$	$V_{CB}=(-)30V, f=1MHz$		1.8 (2.3)	pF
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
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
Base to Emitter Breakdown Voltage	$V_{(BR)EBO}$	$I_C=(-)10\mu A, I_C=0$	(-)5		V

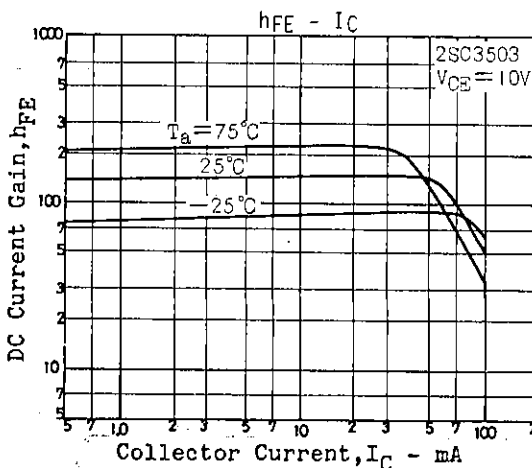
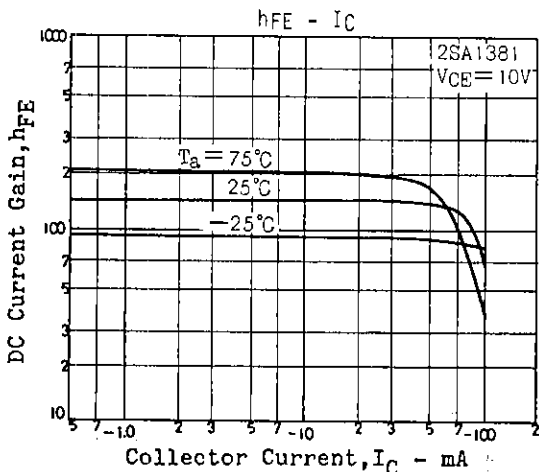
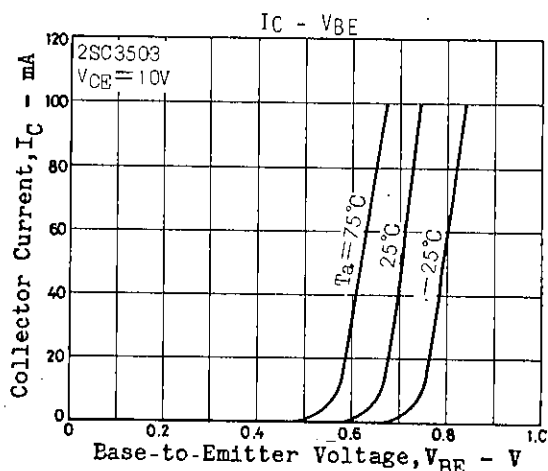
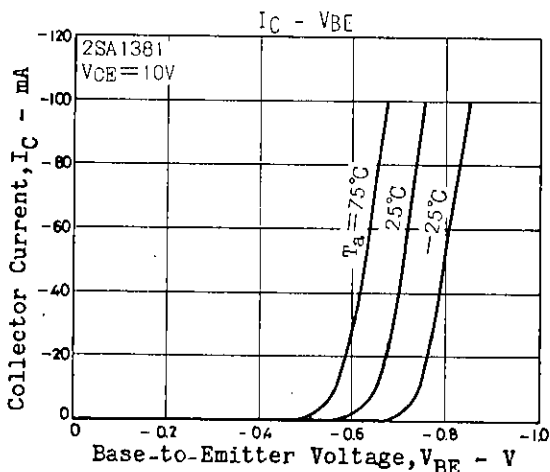
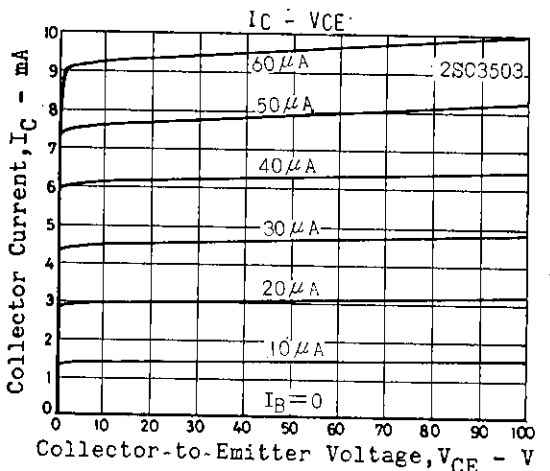
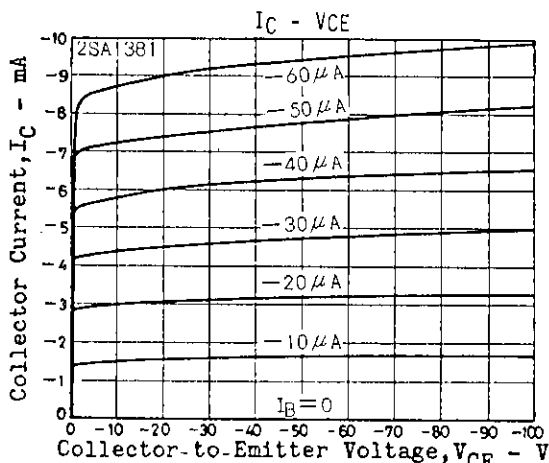
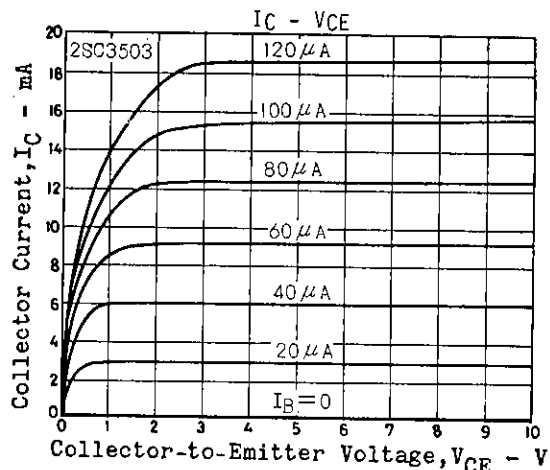
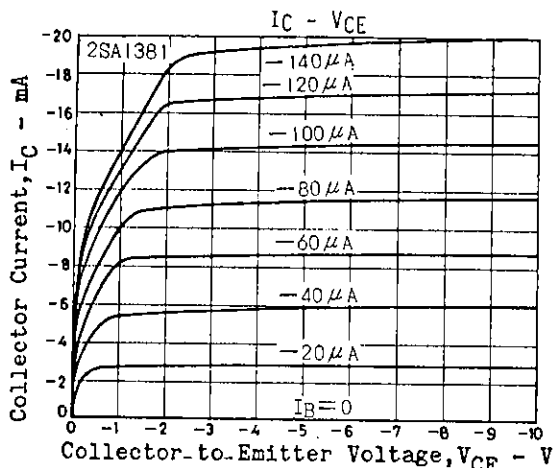
\* The 2SA1381/2SC3503 are classified by 10mA  $h_{FE}$  as follows:

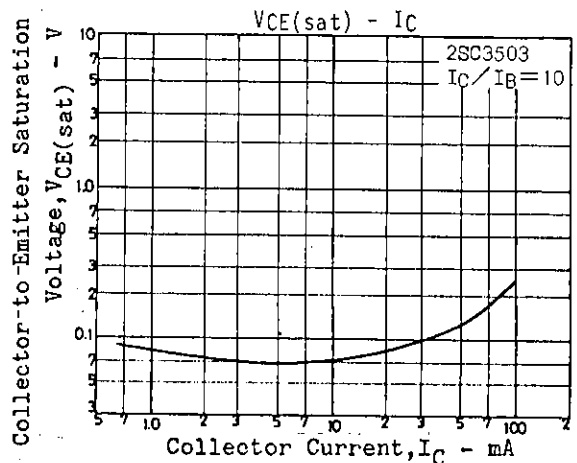
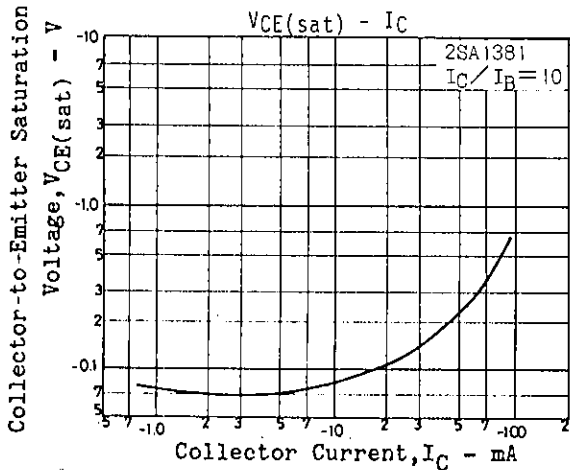
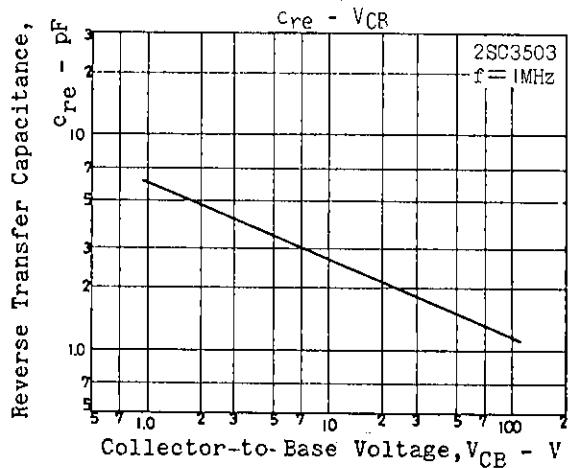
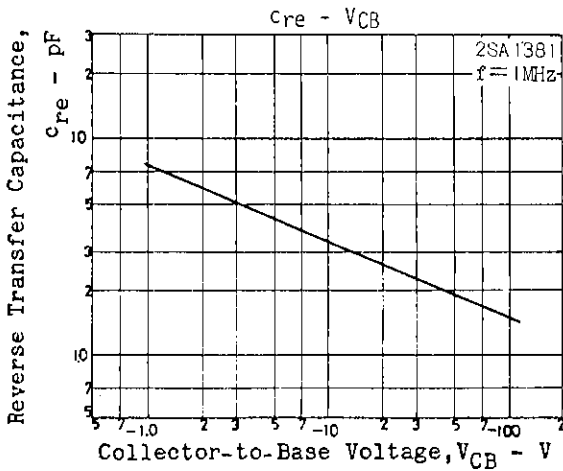
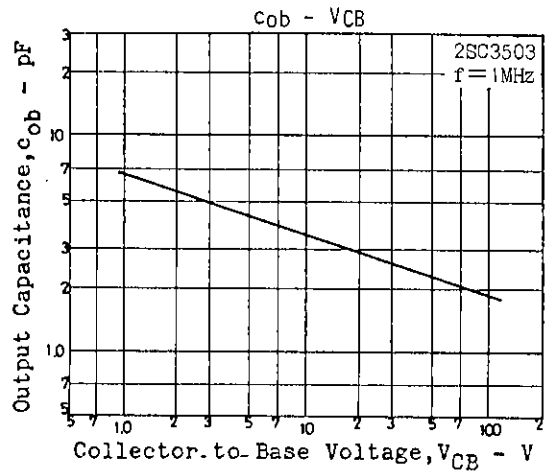
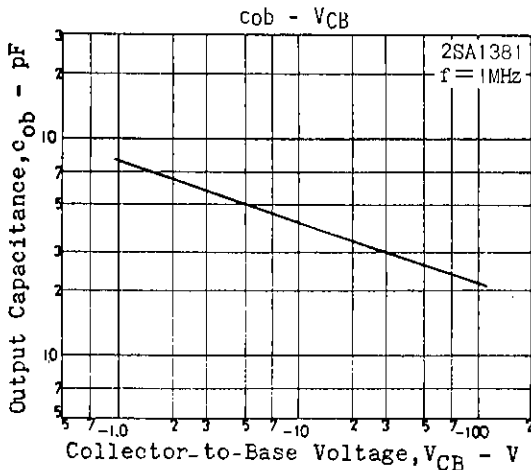
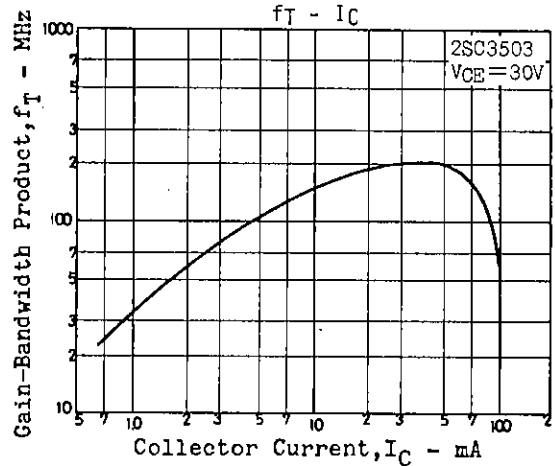
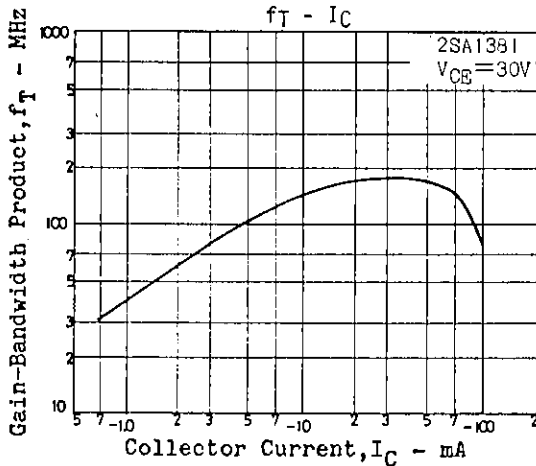
40	C	80	60	D	120	100	E	200	160	F	320
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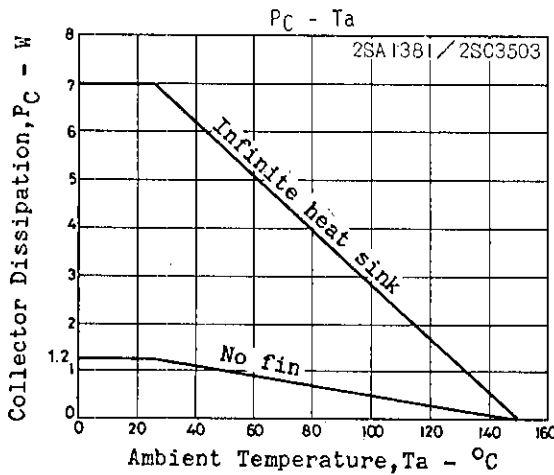
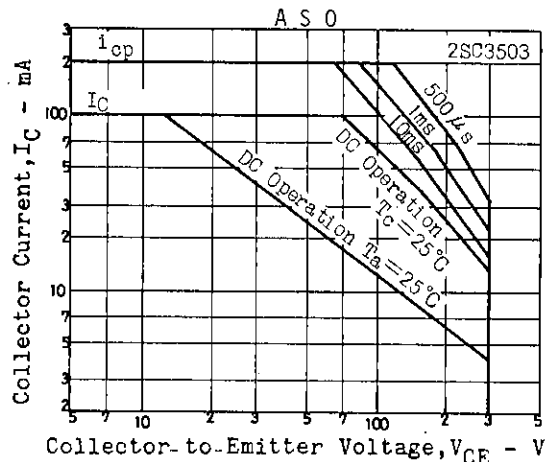
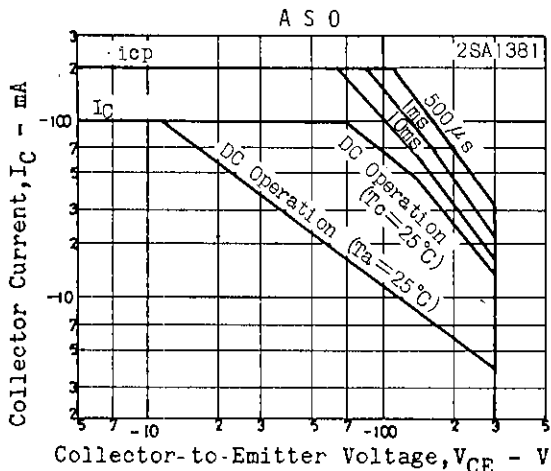
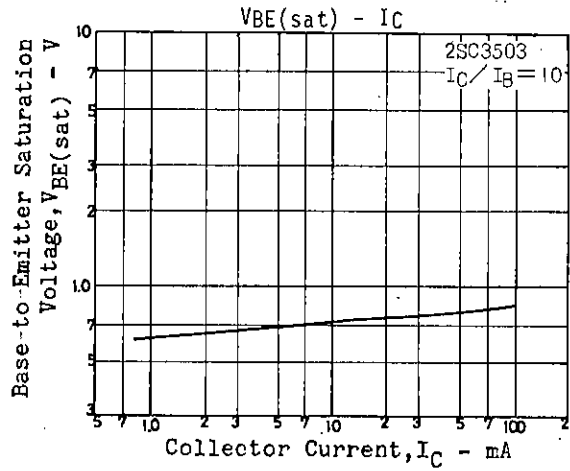
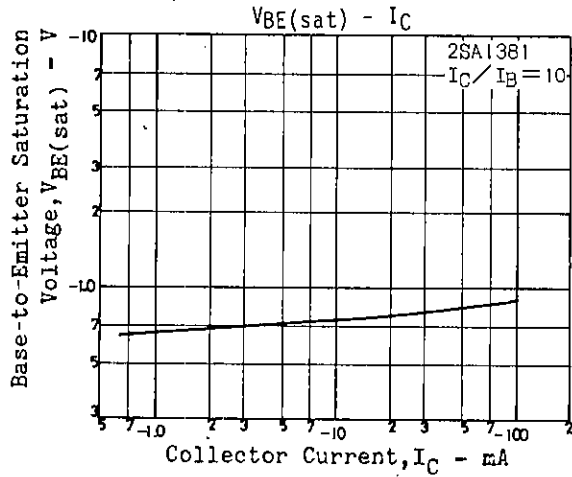
Package Dimensions 2009A  
(unit:mm)



JEDEC: TO-126  
B: Base  
C: Collector  
E: Emitter







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