

**SANYO**

No.1425C

**2SA1380/2SC3502**

PNP/NPN Epitaxial Planar Silicon Transistors  
 Ultrahigh-Definition CRT Display  
 Video Output Applications

**Features**

- High breakdown voltage :  $V_{CEO} \geq 200V$ .
- Small reverse transfer capacitance and excellent high-frequency characteristics :  
 $C_{re} = 1.2pF(NPN), 1.7pF(PNP) V_{CB} = 30V$ .
- Adoption of FBET process.

( ) : 2SA1380

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

			unit
Collector-to-Base Voltage	$V_{CBO}$	(- )200	V
Collector-to-Emitter Voltage	$V_{CEO}$	(- )200	V
Emitter-to-Base Voltage	$V_{EBO}$	(- )5	V
Collector Current	$I_C$	(- )100	mA
Collector Current (Pulse)	$I_{CP}$	(- )200	mA
Collector Dissipation	$P_C$	1.2	W
		5	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

$T_c = 25^\circ C$

**Electrical Characteristics at  $T_a = 25^\circ C$** 

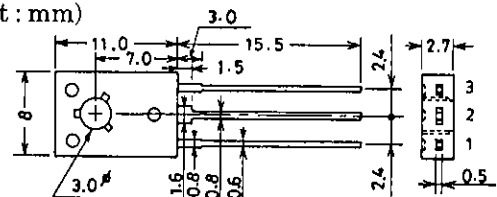
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)150V, I_E = 0$			(- )0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(- )0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = (-)10V, I_C = (-)10mA$	40*		320*	
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)30V, I_C = (-)10mA$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB} = (-)30V, f = 1MHz$		1.7		pF
				(2.6)		pF
Reverse Transfer Capacitance	$C_{re}$	$V_{CB} = (-)30V, f = 1MHz$		1.2		pF
				(1.7)		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(- )0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)20mA, I_B = (-)2mA$			(- )1.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(- )200			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(- )200			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$	(- )5			V

\* : The 2SA1380/2SC3502 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 2009B**

(unit : mm)



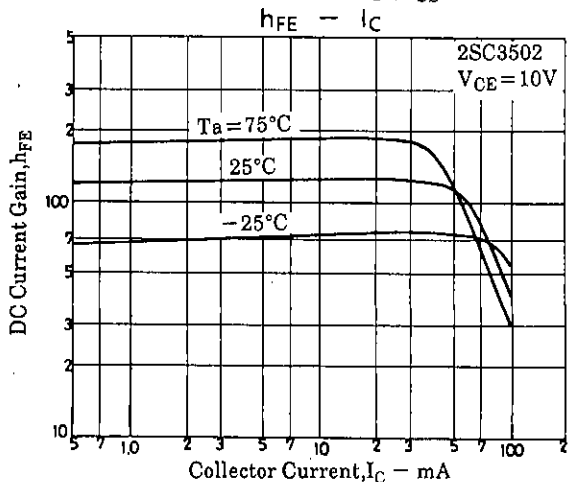
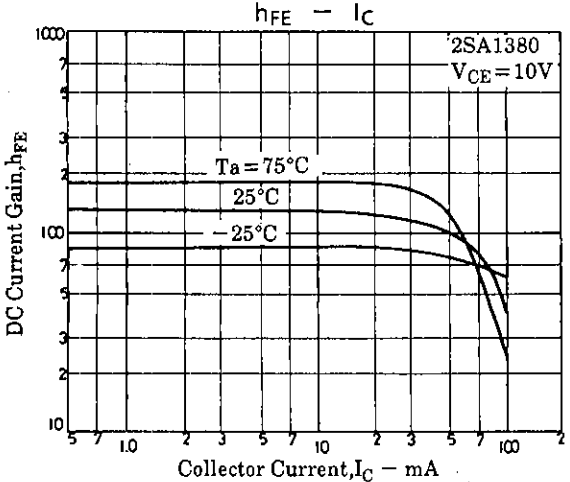
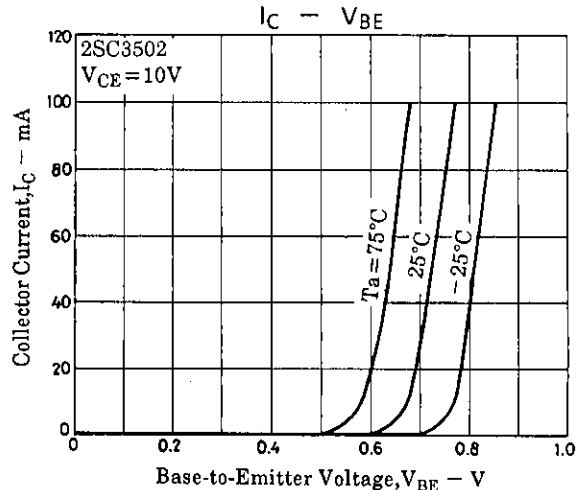
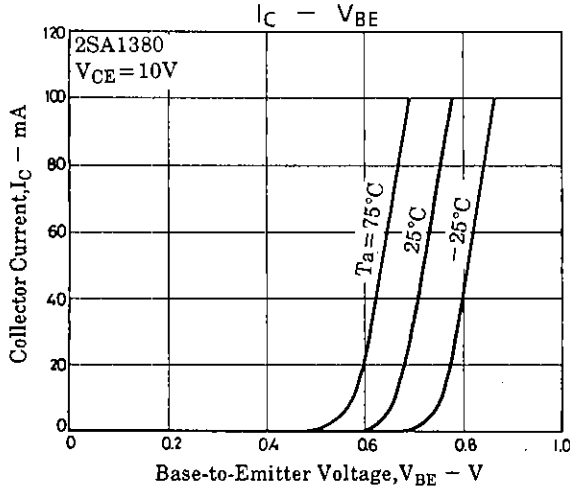
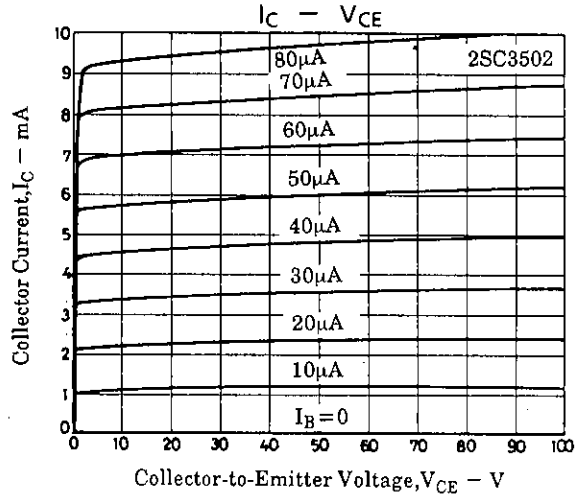
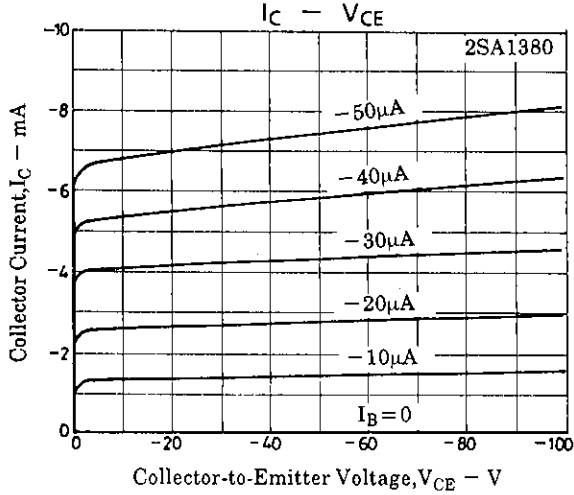
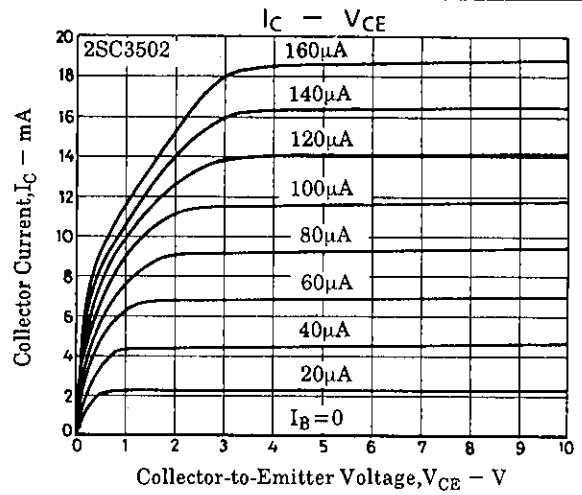
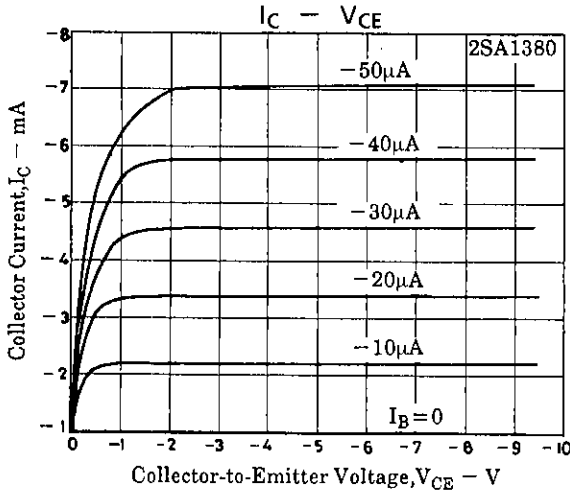
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1 : Emitter  
 2 : Collector  
 3 : Base

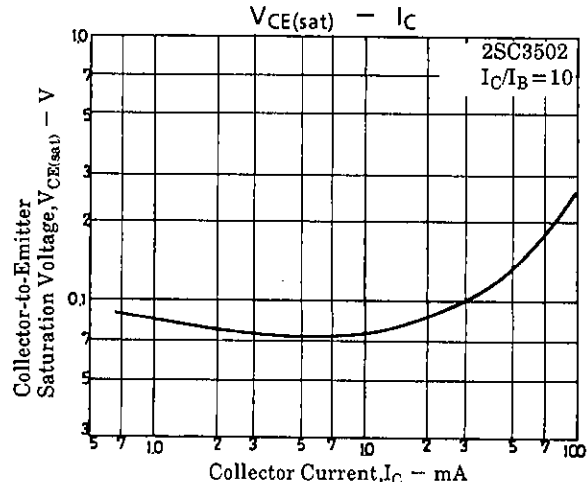
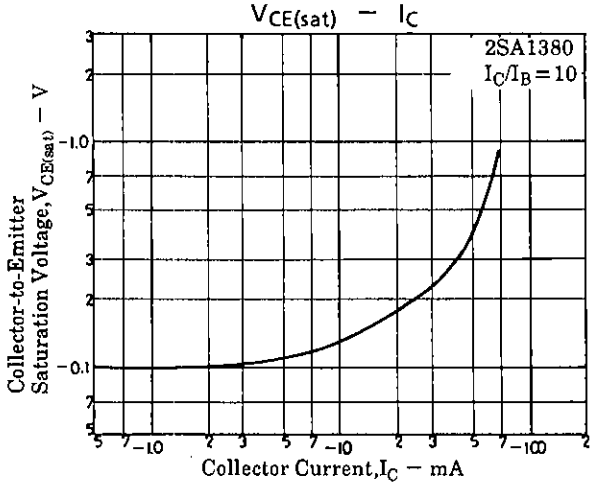
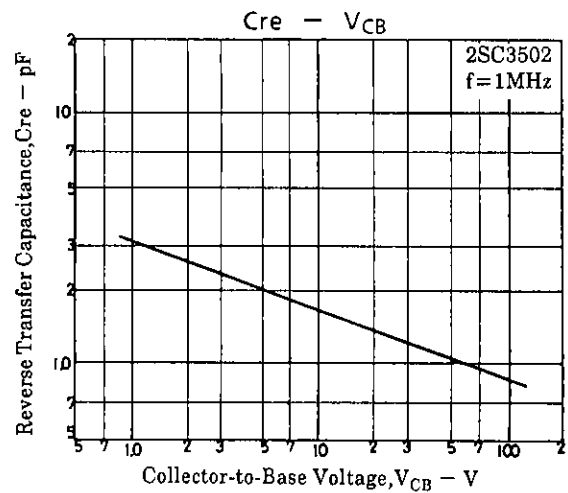
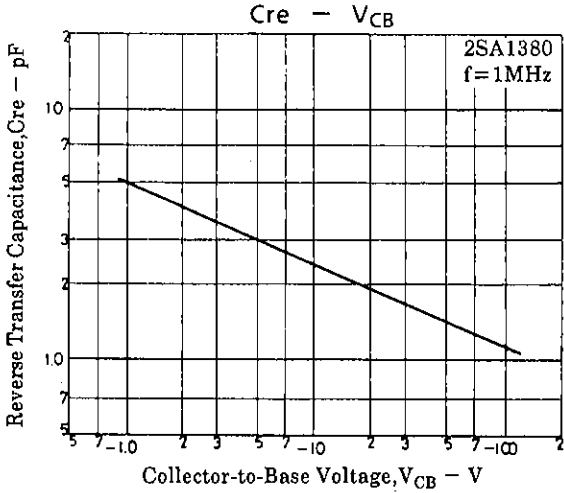
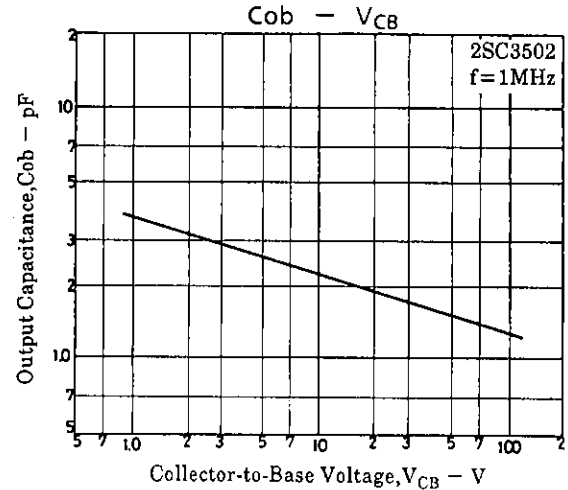
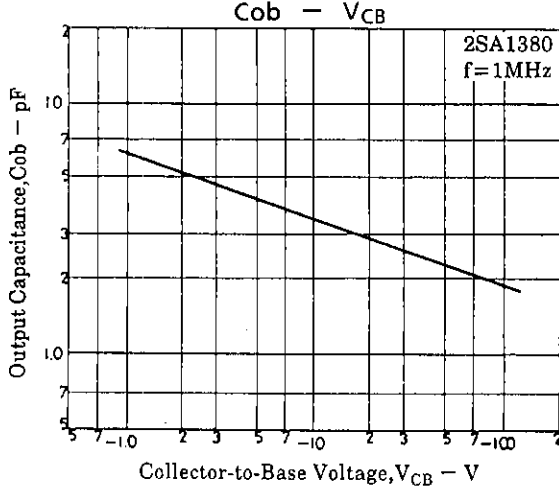
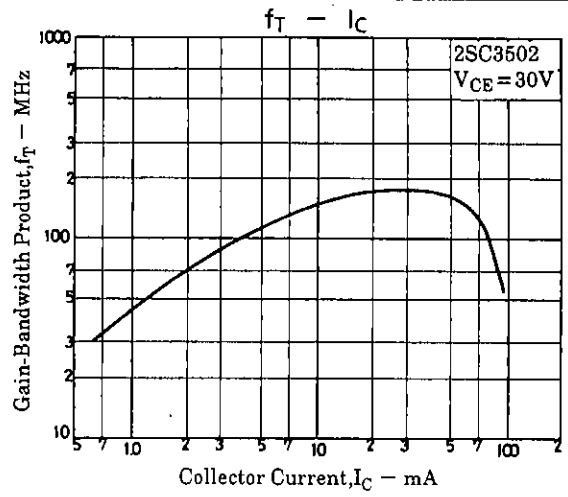
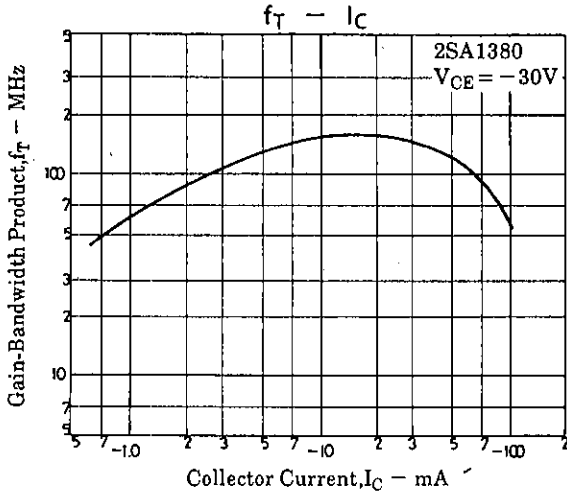
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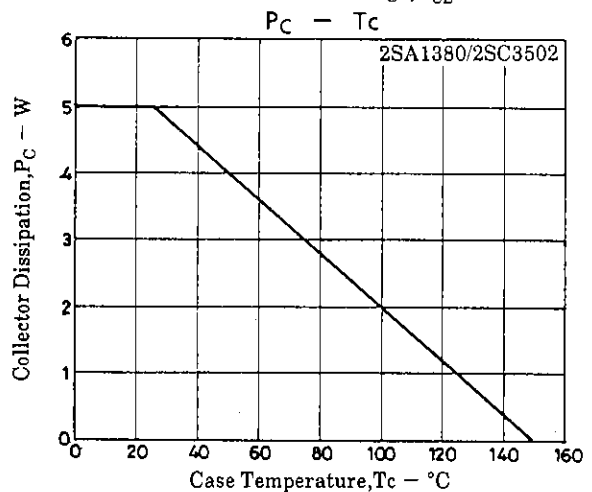
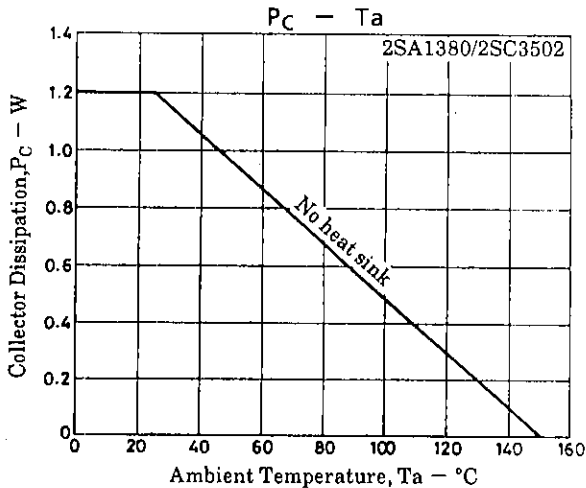
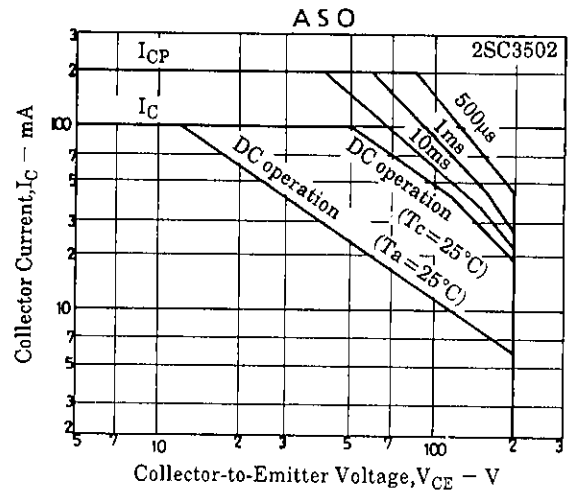
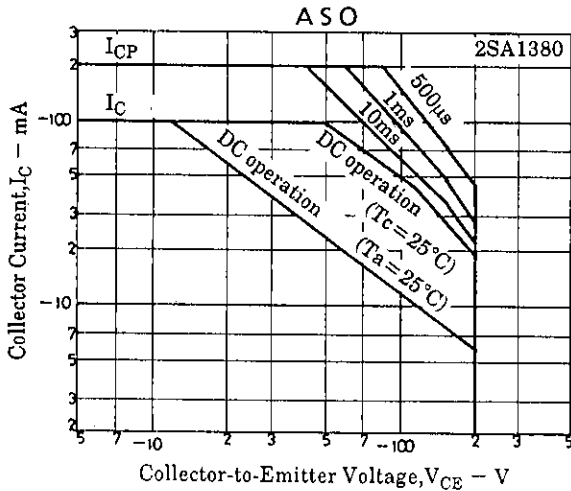
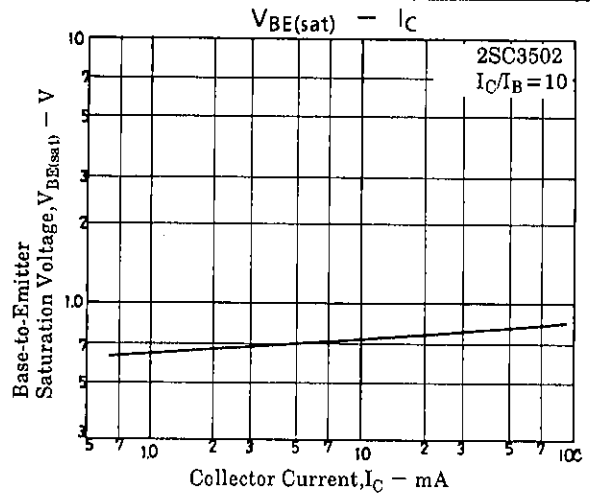
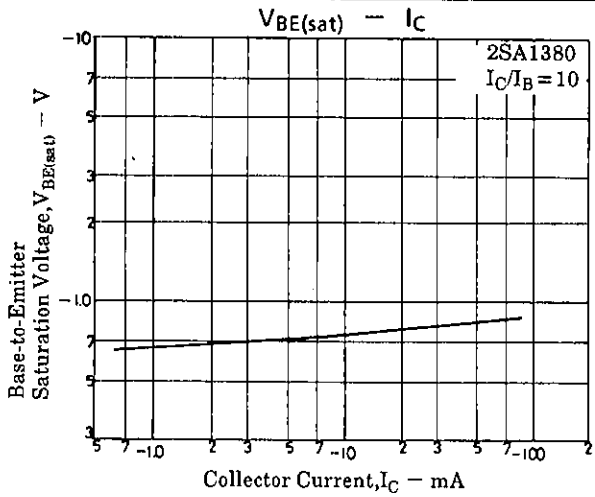
2SA1380/2SC3502



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