

SANYO

No.1426B

2SA1381/2SC3503

PNP/NPN Epitaxial Planar Silicon Transistor

High-Definition CRT Display
Video Output Applications**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 $T_a=25^\circ C$

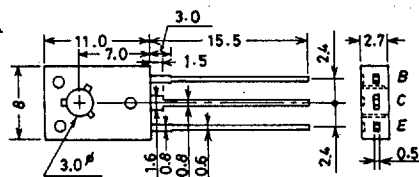
			unit
Collector-to-Base Voltage	V_{CBO}	(-)300	V
Collector-to-Emitter Voltage	V_{CEO}	(-)300	V
Emitter-to-Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)100	mA
Collector Current (Pulse)	I_{CP}	(-)200	mA
Allowable Collector Dissipation	P_C	1.2	W
Junction Temperature	T_j	7	W
Storage Temperature	T_{stg}	150	$^\circ C$
		-55 to +150	$^\circ C$

 $T_C=25^\circ C$ **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		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
Output Capacitance	C_{ob}	$V_{CB}=(-)30V, f=1MHz$		2.6		pF
				(3.1)		
Reverse Transfer Capacitance	C_{re}	$V_{CB}=(-)30V, f=1MHz$		1.8		pF
				(2.3)		
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
----	---	----	----	---	-----	-----	---	-----	-----	---	-----

Package Dimensions 2009A
(unit:mm)

JEDEC: TO-126

B: Base
C: Collector
E: Emitter**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

