

SANYO	No.1438B	<h1 style="margin: 0;">2SC3504</h1> <p style="margin: 0;">NPN Epitaxial Planar Silicon Transistor</p> <p style="margin: 0;">High-Definition CRT Display, Video Output Applications</p>
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Features

- . High f_T .
- . Small reverse transfer capacitance.

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

Collector to Base Voltage	V_{CB0}	70	V	unit
Collector to Emitter Voltage	V_{CEO}	60	V	
Emitter to Base Voltage	V_{EBO}	4	V	
Collector Current	I_C	50	mA	
Collector Current(Pulse)	I_{CP}	100	mA	
Collector Dissipation	P_C	900	mW	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-55 to +150		$^\circ\text{C}$

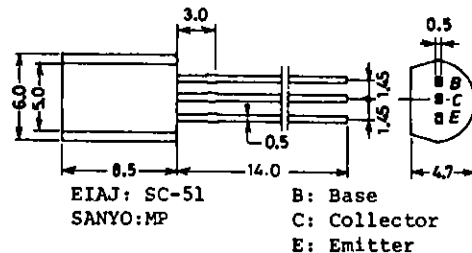
Electrical Characteristics at $T_a=25^\circ\text{C}$

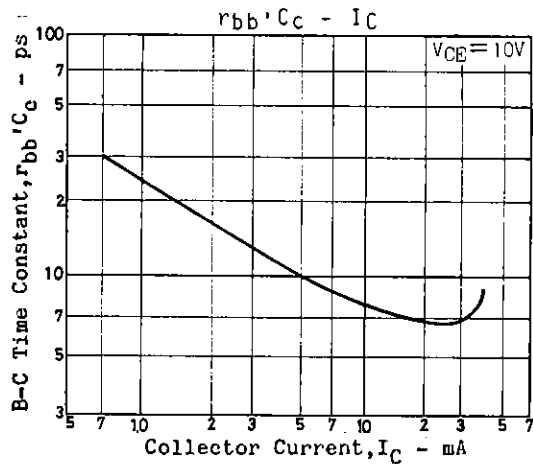
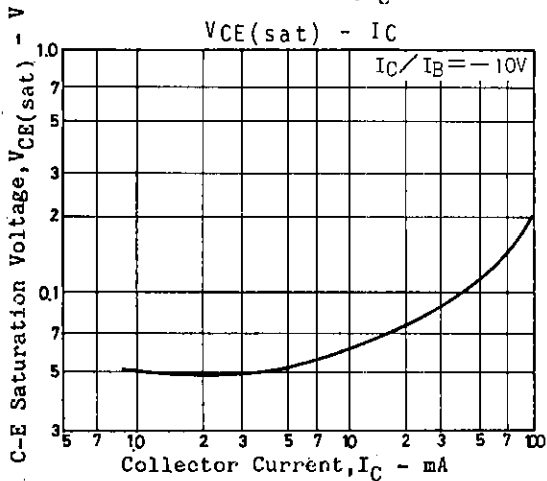
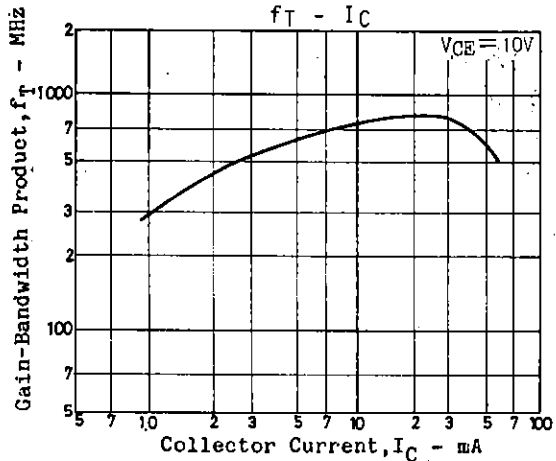
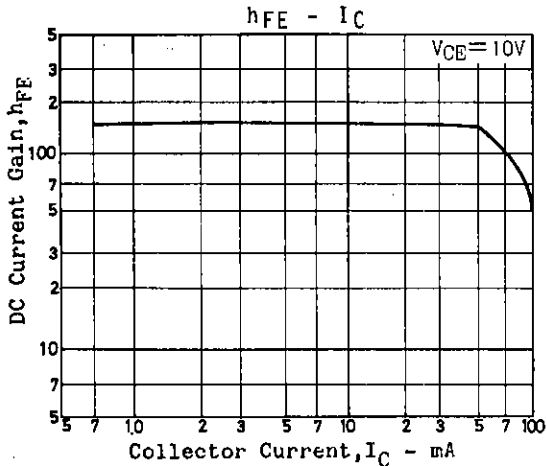
			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=40\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=10\text{V}, I_C=10\text{mA}$	60*		320*	
Gain-Bandwidth Product	f_T	$V_{CE}=10\text{V}, I_C=10\text{mA}$	300	500		MHz
Base to Collector Time Constant	$r_{bb}'c_c$	$V_{CE}=10\text{V}, I_C=10\text{mA}$		8	20	ps
Reverse Transfer Capacitance	c_{re}	$V_{CB}=10\text{V}, f=1\text{MHz}$		1.0	1.6	pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20\text{mA}, I_B=2\text{mA}$			1.0	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	70			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, R_{BE}=\infty$	60			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	4			V

* The 2SC3504 is classified by 10mA h_{FE} as follows:

60	D	120	100	E	200	160	F	320
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Package Dimensions 2006A
(unit: mm)





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