

SANYO

No.1251A

2SC3183

NPN Triple Diffused Planar Silicon Transistor
HIGH-SPEED SWITCHING APPLICATIONS

Features

- High breakdown voltage ($V_{CBO} \geq 900V$).
- High switching speed.
- Wide ASO.

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

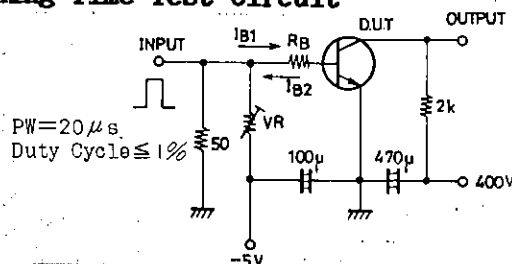
			unit
Collector-to-Base Voltage	V_{CBO}	900	V
Collector-to-Emitter Voltage	V_{CEO}	800	V
Emitter-to-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	0.2	A
Peak Collector Current	i_{cp}	1	A
		$PW \leq 300\mu s, \text{Duty Cycle} \leq 10\%$	
Collector Dissipation	P_C	25	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

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

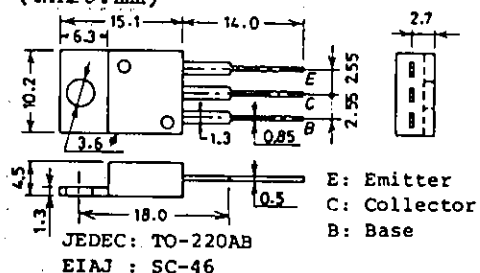
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 800V, I_E = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			10	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = 5V, I_C = 20mA$	10*		40*	
	$h_{FE}(2)$	$V_{CE} = 5V, I_C = 100mA$	8			
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 20mA$			2.0	V
Gain-Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 20mA$		15		MHz
Output Capacitance	c_{ob}	$V_{CB} = 10V, f = 1MHz$		10		pF
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1mA, I_E = 0$	900			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	800			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	7			V
C-E Sustain Voltage	$V_{CEO(sus)}$	$I_C = 0.2A, I_B = 0.04A, L = 10mH$	800			V
"	$V_{CEX(sus)}$	$I_C = 0.2A, I_{B1} = 0.04A, I_{B2} = -0.04A, L = 10mH, \text{clamped}$	900			V
Turn-on Time	t_{on}	$I_C = 200mA, I_{B1} = 40mA, I_{B2} = -80mA$			1.0	μs
Storage Time	t_{stg}	" "			3.0	μs
Fall Time	t_f	" "			1.0	μs

*: The $h_{FE}(1)$ of the 2SC3183 is classified as follows. When specifying the $h_{FE}(1)$ rank, specify two ranks or more in principle.

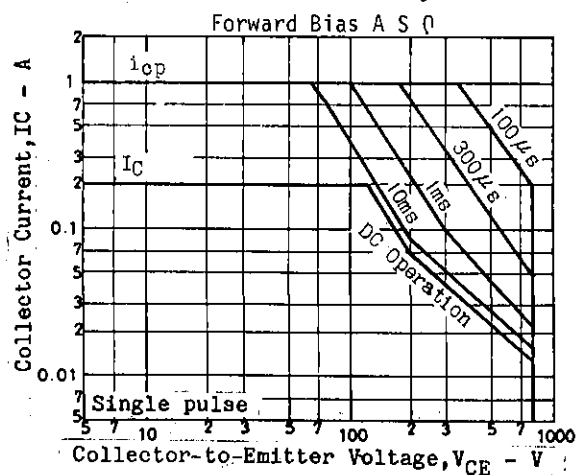
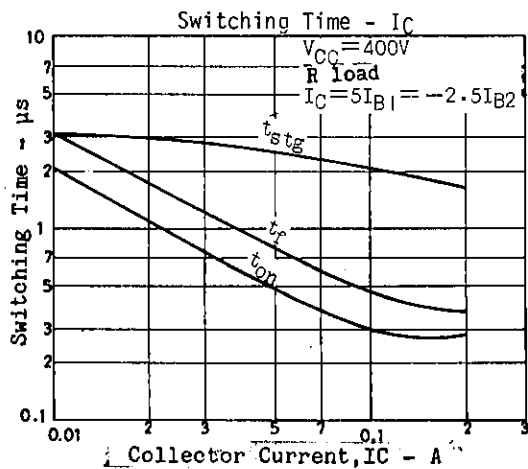
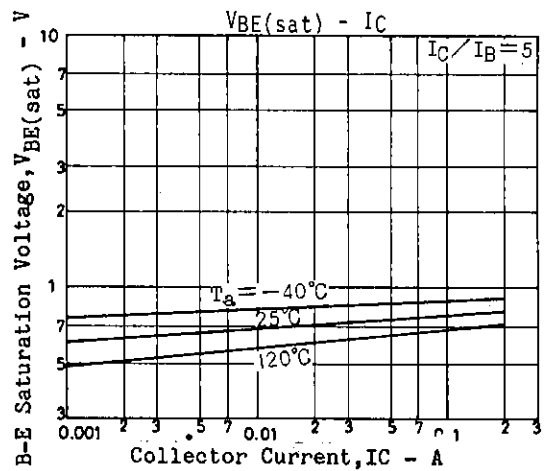
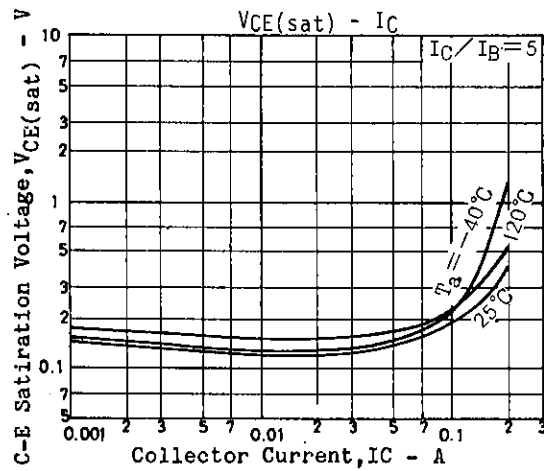
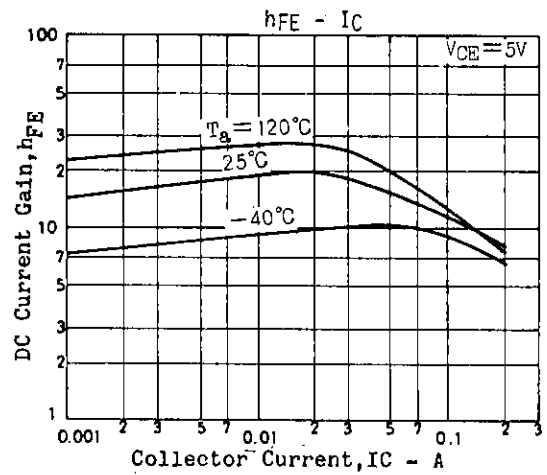
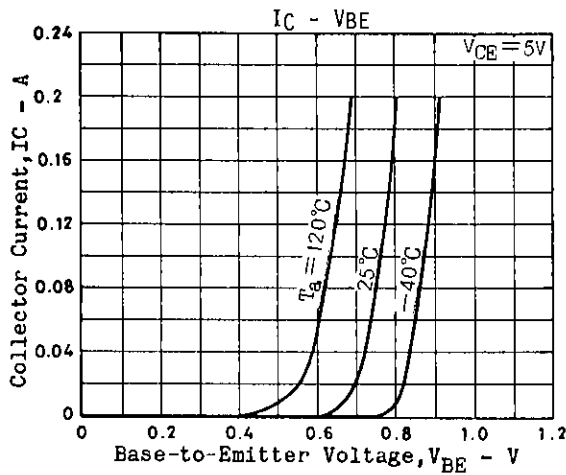
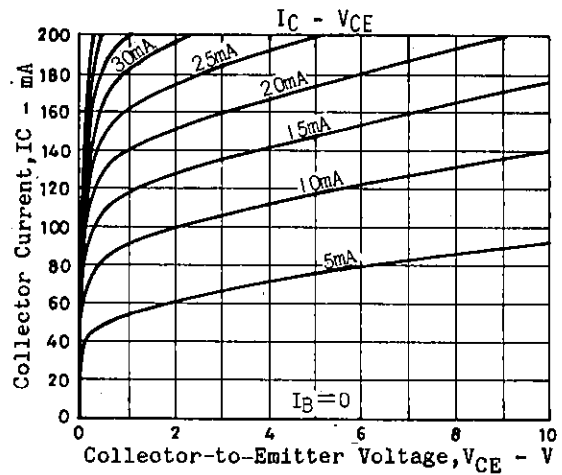
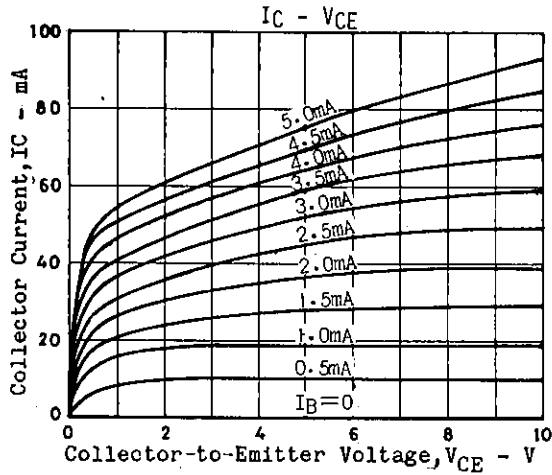
10	K	20	15	L	30	20	M	40
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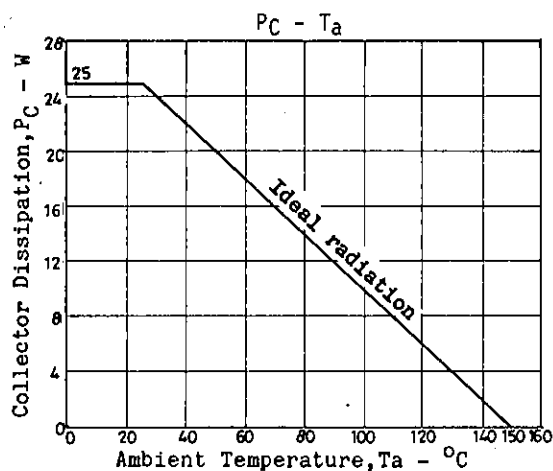
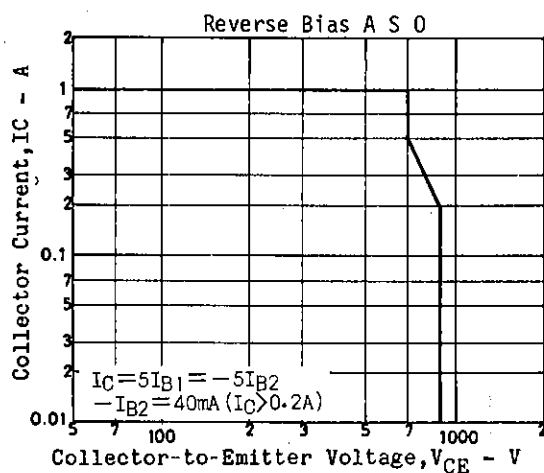
Switching Time Test Circuit

Unit (Resistance: Ω , Capacitance: F)

Package Dimensions 2010A (unit:mm)

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