Ordering number: EN 2265A

SANYO

No.2265A

2SB1269/2SD1905

PNP/NPN Epitaxial Planar Type
Silicon Transistors

HIGH-CURRENT SWITCHING APPLICATIONS

Applications

- Suitable for relay drivers, high-speed inverters, converters, and other general high-current switching applications

Features

- Suitable for sets whose height is restricted
- Low collector to emitter saturation voltage
- Wide ASO and highly resistant to breakdown

( ): 2SB1269

Absolute Maximum Ratings at Ta=25°C

				unit
Collector to Base Voltage	V_{CBO}		(-)60	V
Collector to Emitter Voltage	V_{CEO}		(-)50	V
Emitter to Base Voltage	V_{EBO}		(-)6	V
Collector Current	I_C		(-)7	A
Peak Collector Current	i_{cp}		(-)12	A
Collector Dissipation	P_C		1.65	W
		Tc=25°C	40	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)4V, I_C=0			(-)0.1	mA
DC Current Gain	$h_{FE(1)}$	V_{CE}=(-)2V, I_C=(-)1A	70*		280*	
	$h_{FE(2)}$	V_{CE}=(-)2V, I_C=(-)5A	30			
Gain-Bandwidth Product	f_T	V_{CE}=(-)5V, I_C=(-)1A		10		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	I_C=(-)4A, I_B=(-)0.4A			(-)0.4	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)1mA, I_E=0	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)1mA, I_C=0	(-)6			V

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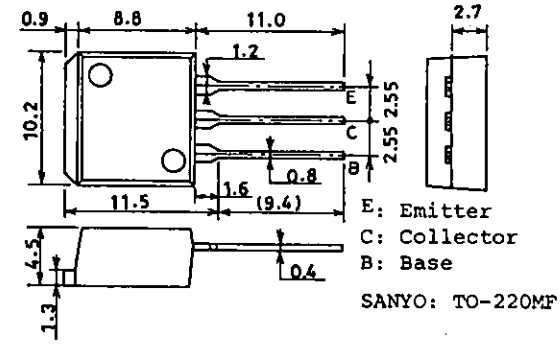
Package Dimensions 2049B
(unit: mm)



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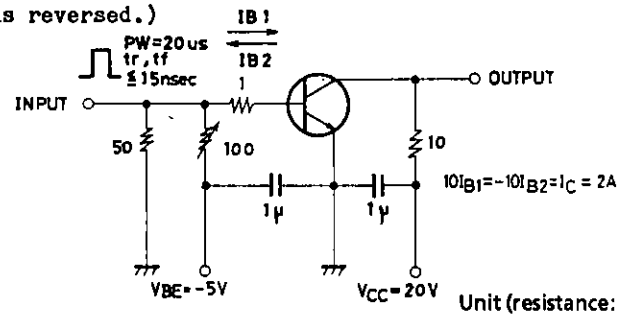
			min	typ	max	unit
Turn-on Time	t_{on}	See specified Test Circuit.		0.2		μs
Storage Time	t_{stg}	"		(0.1)0.3		μs
Fall Time	t_f	"		(0.7)0.9		μs

*: The 2SB1269/2SD1905 are classified by 1A h_{FE} as follows:

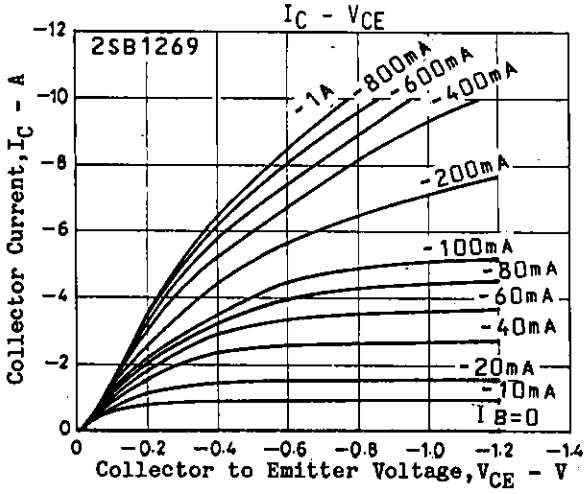
70 Q 140	100 R 200	140 S 280

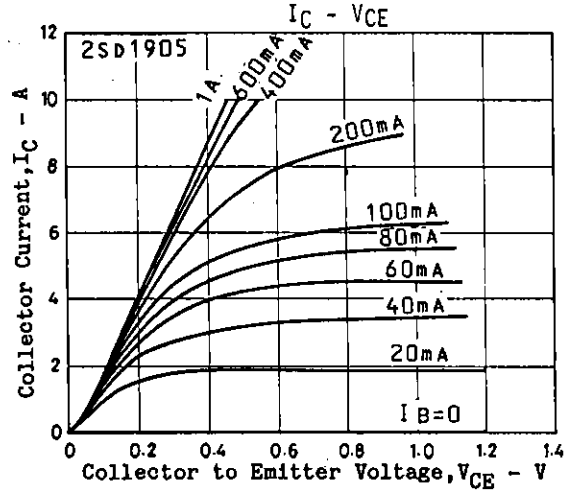
Switching Time Test Circuit

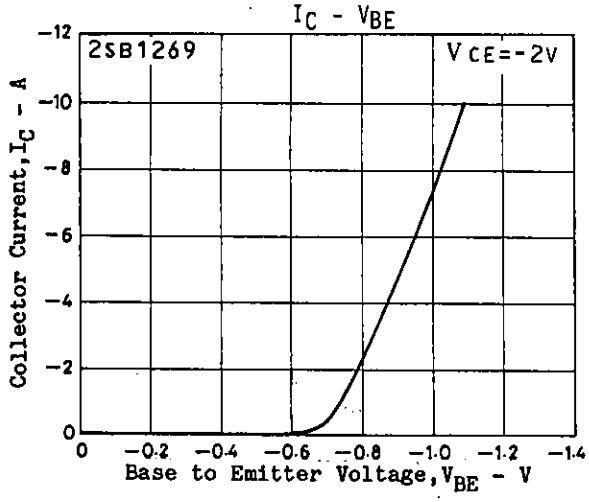
(For PNP, the polarity is reversed.)

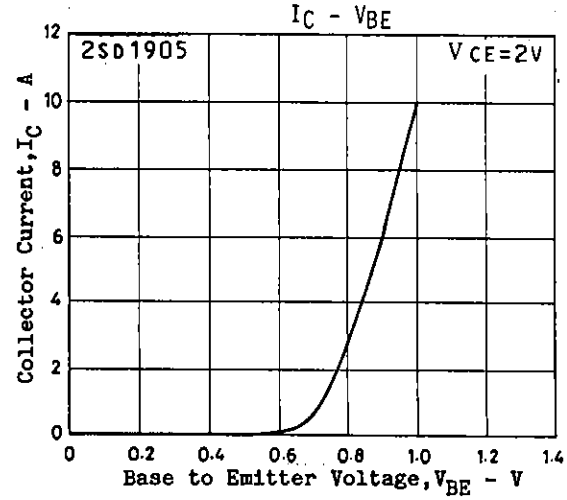


Unit (resistance: Ω, capacitance: F)

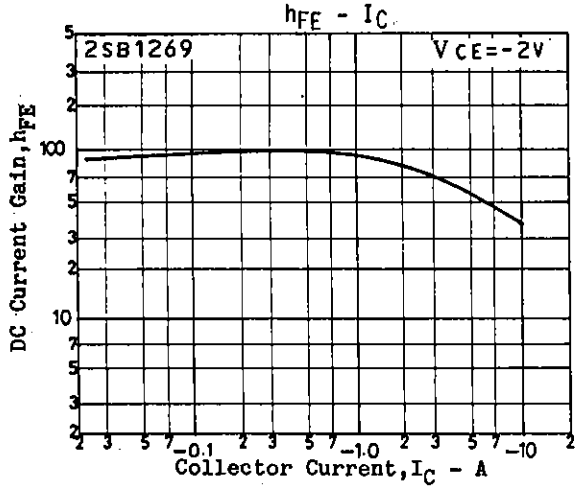




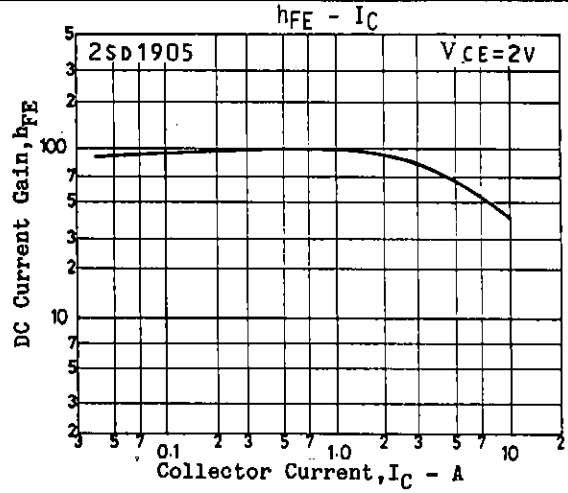




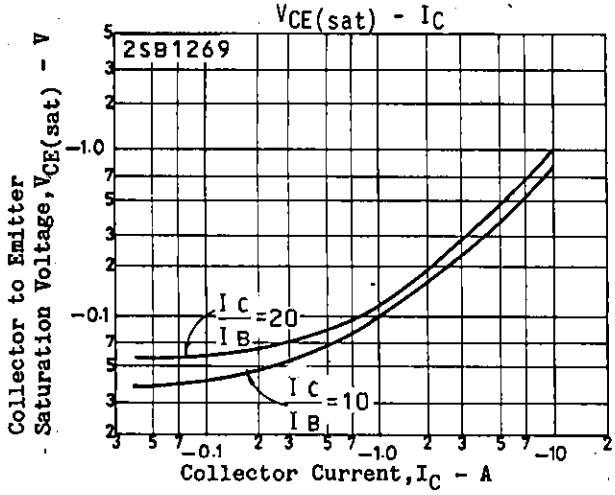
h_{FE} - I_C



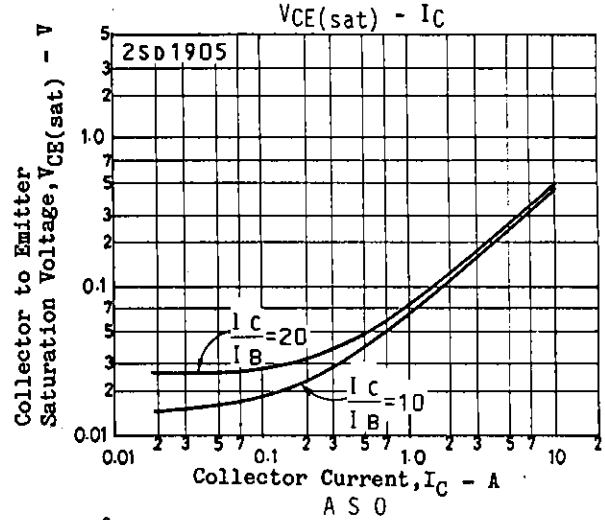
h_{FE} - I_C



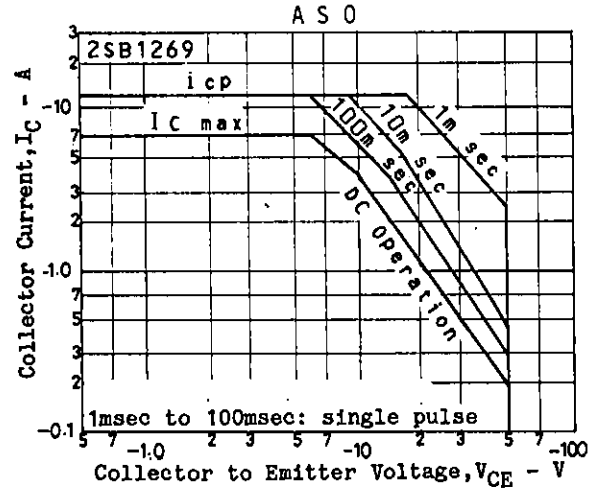
$V_{CE(sat)}$ - I_C



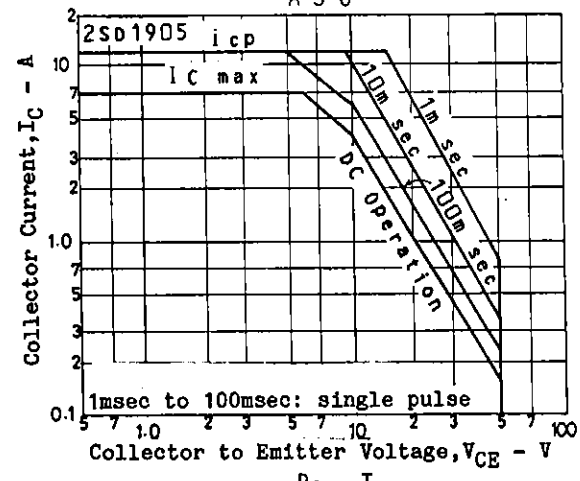
$V_{CE(sat)}$ - I_C



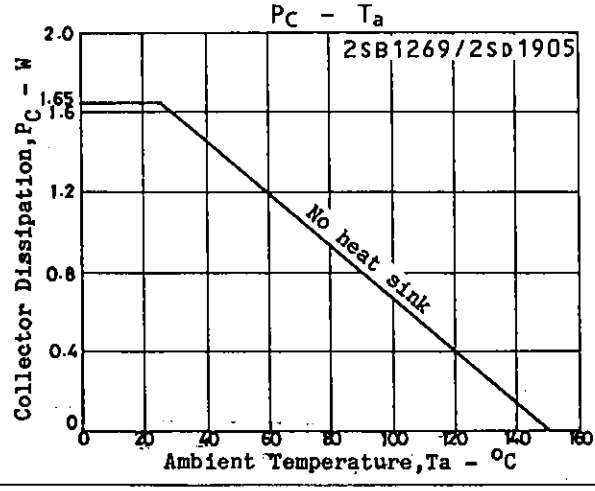
A S O



A S O



P_C - T_a



P_C - T_a