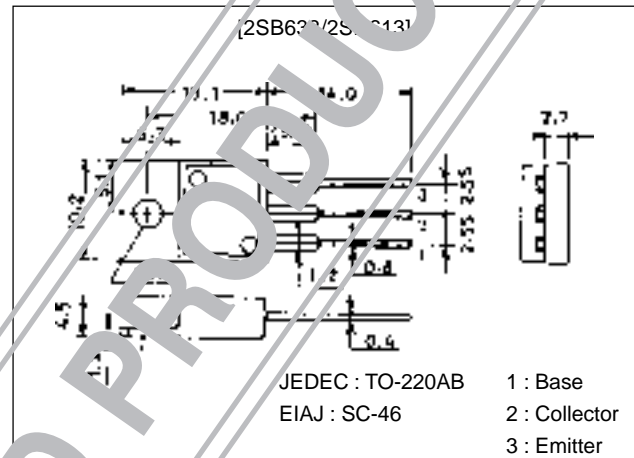


SANYO**2SB633/2SD613****85V/6A, AF 25 to 35W Output Applications****Features**

- High breakdown voltage, $V_{CE0}85V$, high current 6A.
- AF25 to 35W output.

Package Dimensionsunit:mm
2010C

() : 2SB633

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)100	V
Collector-to-Emitter Voltage	V_{CEO}		(-)85	V
Emitter-to-Base Voltage	V_{EBO}		(-)6	V
Collector Current	I_C		(-)6	A
Collector Current (Pulse)	I_{CP}		(-)10	A
Collector Dissipation	P_C	$T_c=25^\circ C$	40	W
Junction Temperature	T_J		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
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_{FE1}	$V_{CE}=(-)5V, I_C=(-)1A$	40*		320*	
	h_{FE2}	$V_{CE}=(-)5V, I_C=(-)3A$	20			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)1A$		15		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)4A, I_B=(-)0.4A$			(-)2.0	V
Base-to-Emitter Voltage	V_{BE}	$I_E=(-)5A, I_C=(-)1A$			(-)1.5	V
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(150)		pF
				110		pF

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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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91098HA (KT)/90595MO (KOTO)/D251MH/4017KI/1115MW, TS/No.174, 8-2629 No.513-1/4

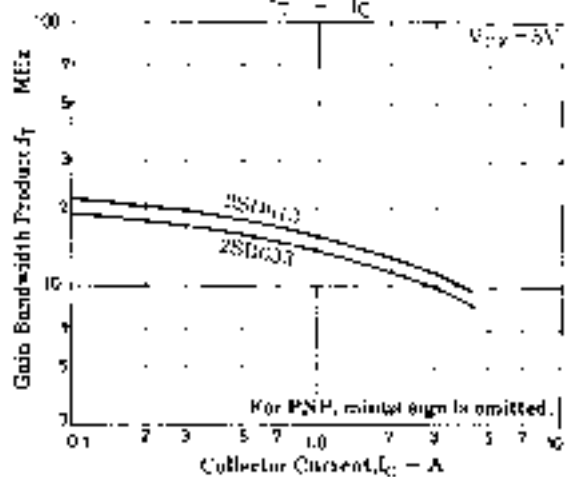
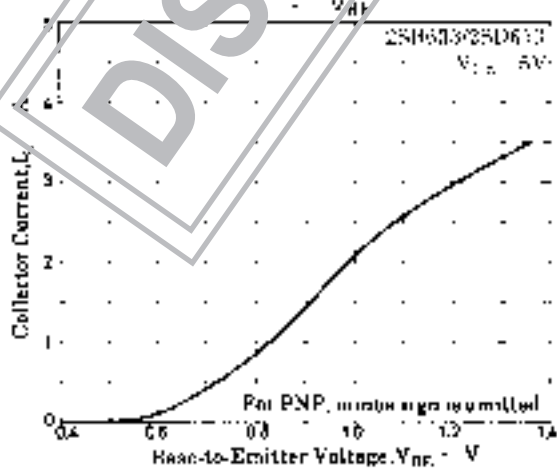
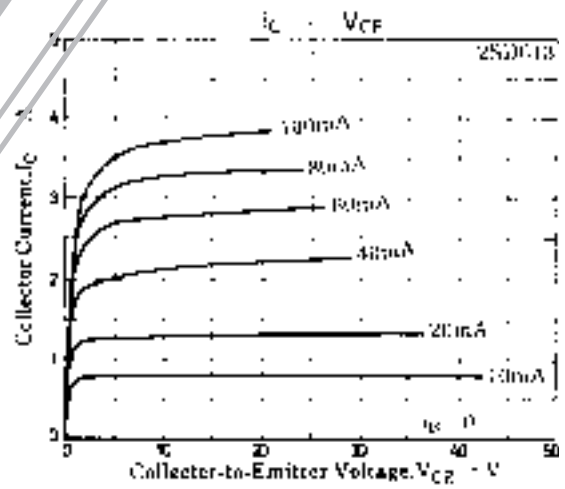
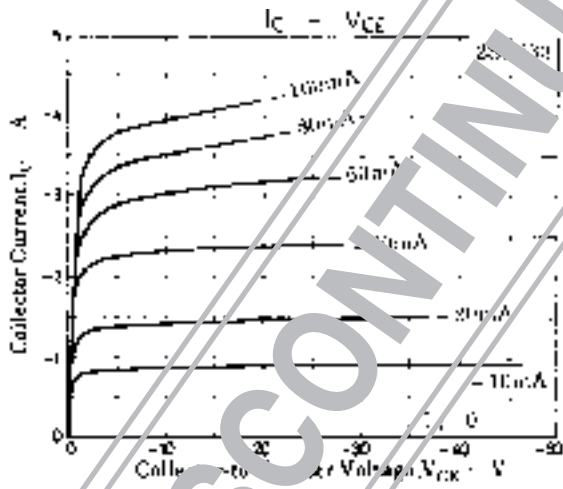
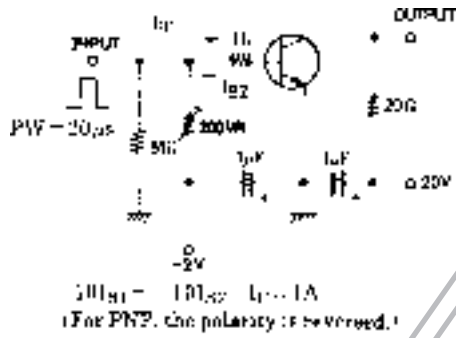
2SB633/2SD613

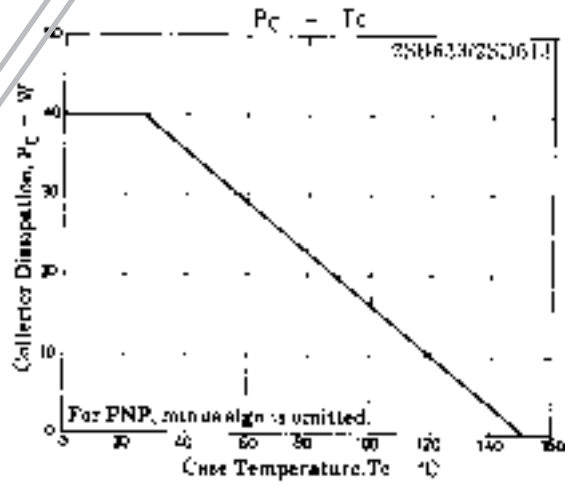
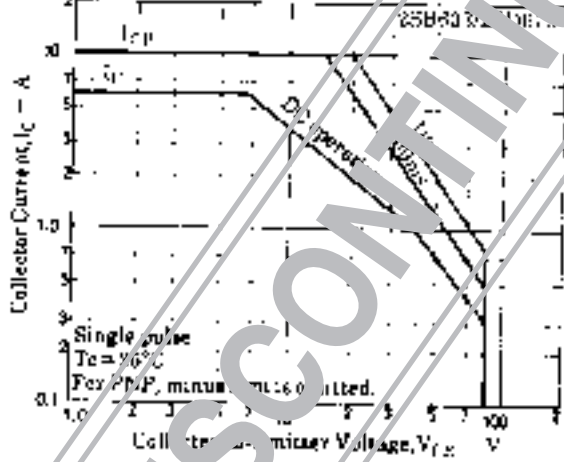
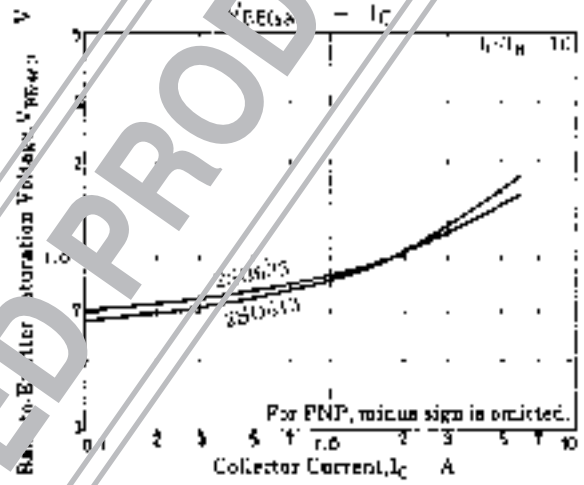
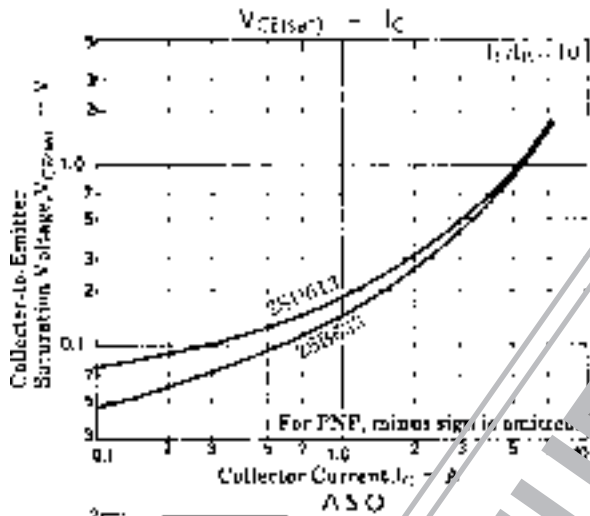
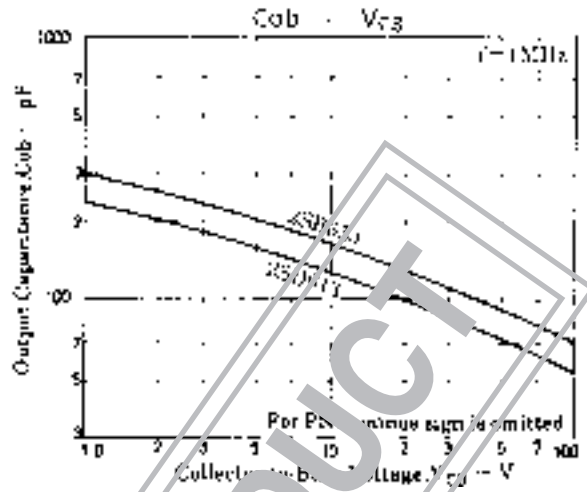
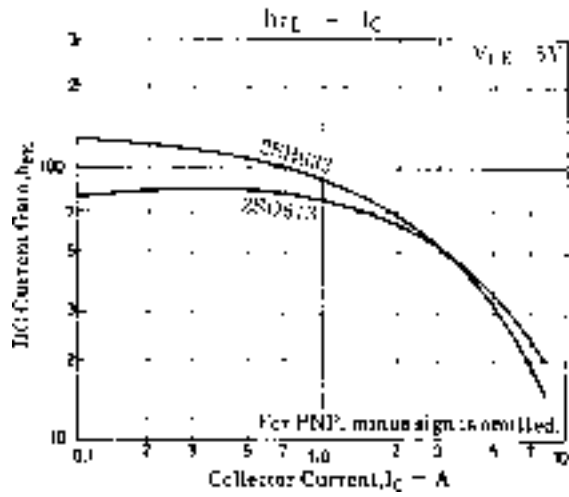
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)5mA, I_E = 0$	(-)100			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)5mA, R_{BE} = \infty$	(-)85			V
	$V_{(BR)CEO}$	$I_C = (-)50mA, R_{BE} = \infty$	(-)85			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)5mA, I_C = 0$	(-)6			V
Turn-ON Time	t_{on}	See specified Test Circuit		(0.16)		μs
Fall Time	t_f	See specified Test Circuit		0.28		μs
				(0.33)		μs
Storage Time	t_{stg}	See specified Test Circuit		0.50		μs
				(15)		μs
				3.60		μs

* : The 2SB633/2SD613 are classified by $1A h_{FE}$ as follows :

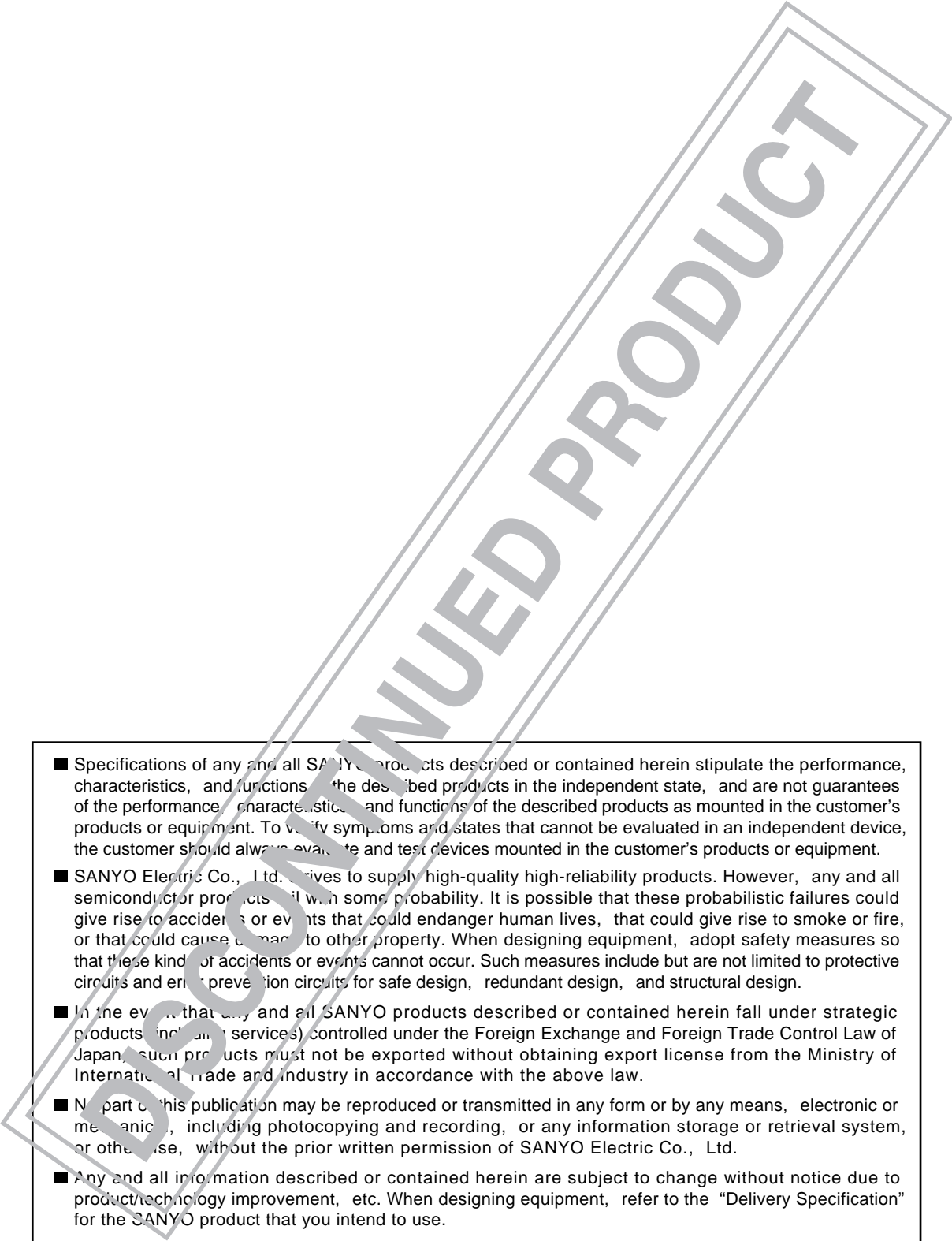
40	C	80	60	D	120	100	E	200	160	F	320
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Switching Time Test Circuit





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