

SANYO

No.1784B

2SB1118/2SD1618

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Voltage, High-Current Amp,
Muting Applications**Features**

- Low collector-to-emitter saturation voltage.
- Very small size making it easy to provide high-density, small-sized hybrid IC's

(): 2SB1118

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CBO}	(-)20	V
Collector to Emitter Voltage	V_{CEO}	(-)15	V
Emitter to Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)0.7	A
Collector Current(Pulse)	I_{CP}	(-)1.5	A
Collector Dissipation	P_C	500	mW
	P_C Mounted on ceramic board (250mm ² x 0.8mm)	1.3	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)15V, I_C=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-)0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=(-)2V, I_C=(-)50mA$	140		560*	
	$h_{FE(2)}$	$V_{CE}=(-)2V, I_C=(-)500mA$	60			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		250		MHz
C-E Saturation Voltage	$V_{CE(sat)}^1$	$I_C=(-)5mA, I_B=(-)0.5mA$		10	25	mV
				(-15)	(-35)	mV
	$V_{CE(sat)}^2$	$I_C=(-)100mA, I_B=(-)10mA$		30	80	mV
				(-60)	(-120)	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100mA, I_B=(-)10mA$		(-)0.8	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10μA$		(-)20		V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA$		(-)15		V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10μA$		(-)5		V
Output Capacitance	c_{ob}	$V_{CB}=(-)10V, f=1MHz$		8		pF
				(13)		pF

*:The 2SB1118/2SD1618 are classified by 50mA h_{FE} as follows:

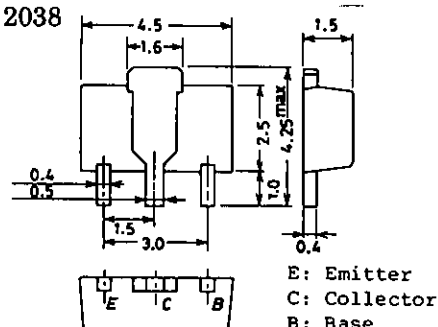
140	S	280	200	T	400	280	U	560
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Marking 2SB1118:BA

2SD1618:DA

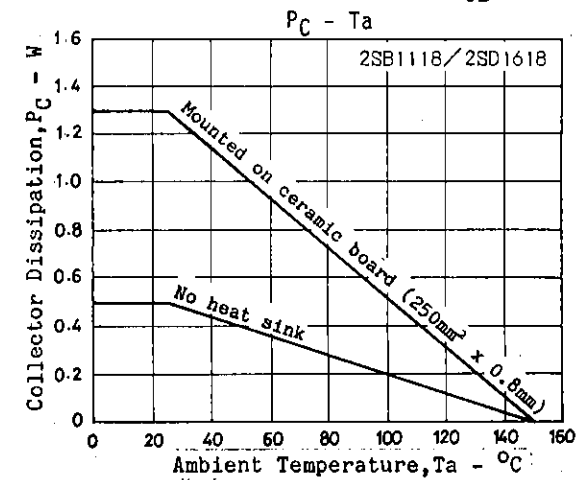
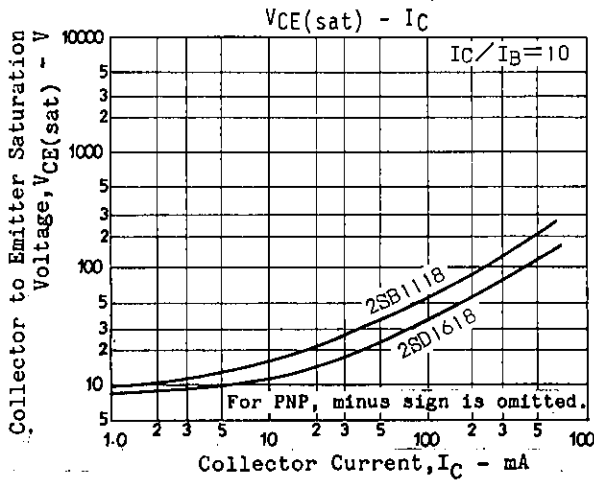
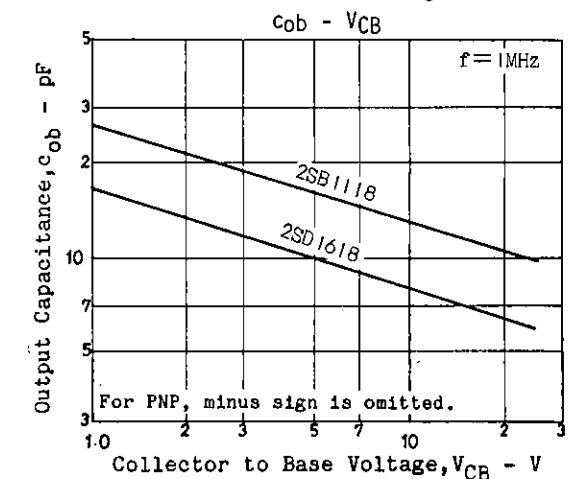
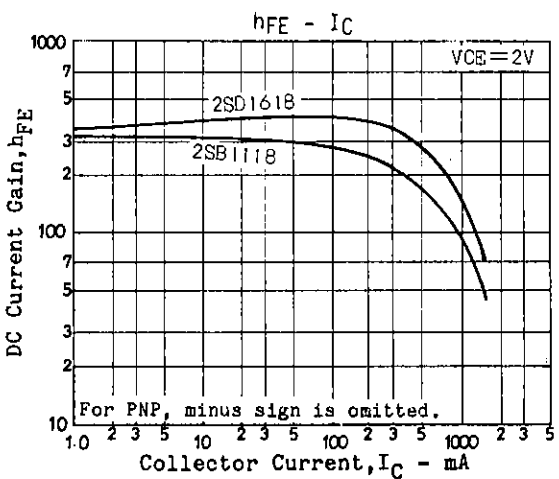
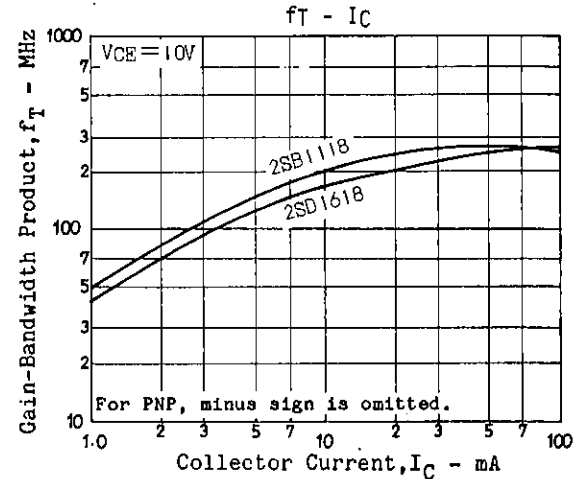
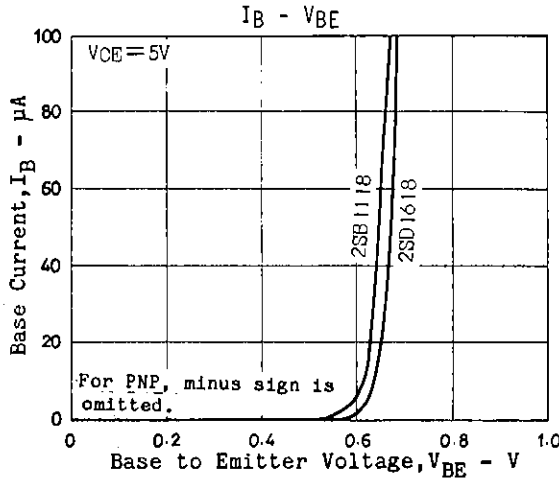
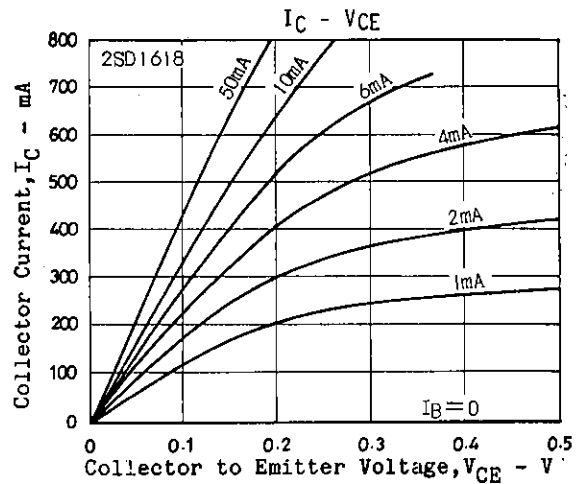
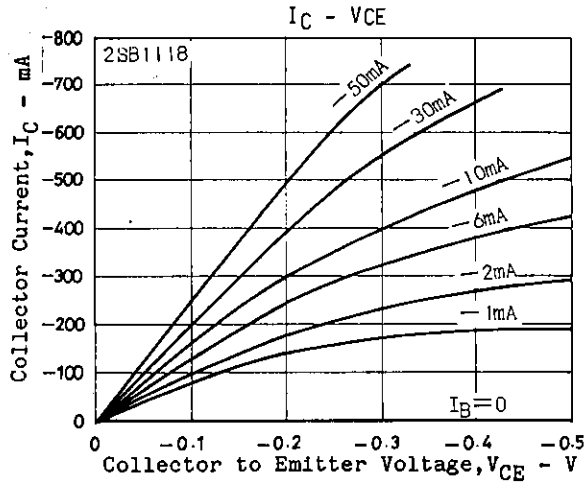
 h_{FE} rank :S,T,U**Package Dimensions 2038**

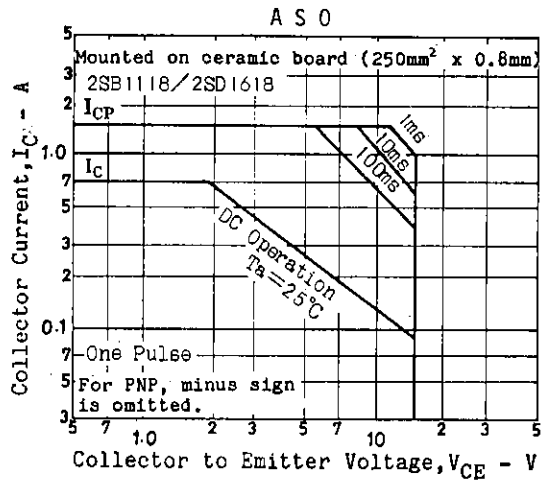
(unit:mm)

E: Emitter
C: Collector
B: BaseSANYO: PCP
(Bottom View)**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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

2SB1118/2SD1618





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