



No.676D

**2SB808/2SD1012**  
 PNP/NPN Epitaxial Planar Silicon Transistors  
 Low-Voltage Large-Current  
 Amp Applications

( ): 2SB808

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

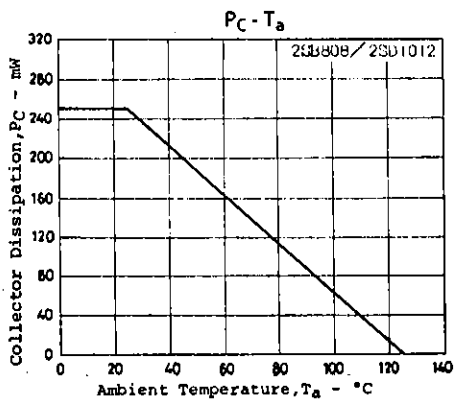
			unit
Collector to Base Voltage	$V_{CB0}$	(-) 20	V
Collector to Emitter Voltage	$V_{CEO}$	(-) 15	V
Emitter to Base Voltage	$V_{EBO}$	(-) 5	V
Collector Current	$I_C$	(-) 0.7	A
Collector Current(Pulse)	$I_{CP}$	(-) 1.5	A
Collector Dissipation	$P_C$	250	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

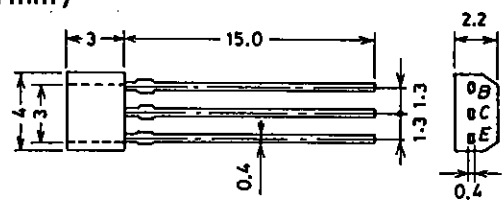
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)15\text{V}, I_E=0$		(-) 1.0		$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4\text{V}, I_C=0$		(-) 1.0		$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=(-)2\text{V}, I_C=(-)50\text{mA}$	160*		960*	
	$h_{FE(2)}$	$V_{CE}=(-)2\text{V}, I_C=(-)500\text{mA}$	80			
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		250		MHz
Common Base Output Capacitance	$C_{ob}$	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(13)		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)5\text{mA}, I_B=(-)0.5\text{mA}$	(-1.5)	(-3.5)		mV
	$V_{CE(sat)2}$	$I_C=(-)100\text{mA}, I_B=(-)10\text{mA}$	(-6.0)	(-12.0)		mV
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)100\text{mA}, I_B=(-)10\text{mA}$	(-) 0.8	(-) 1.2		V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-) 20			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-) 15			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-) 5			V

\* The 2SB808/2SD1012 are classified by 50mA  $h_{FE}$  as follows :

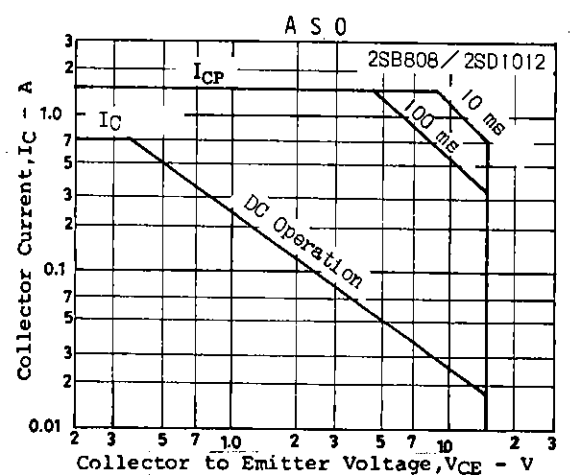
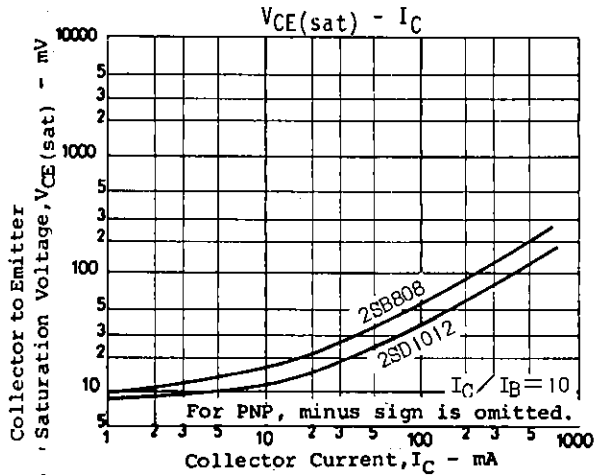
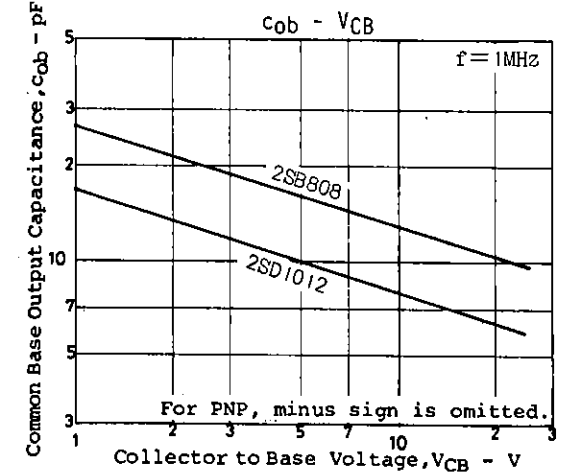
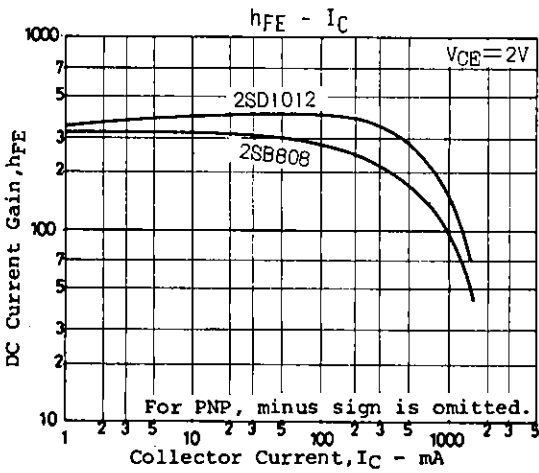
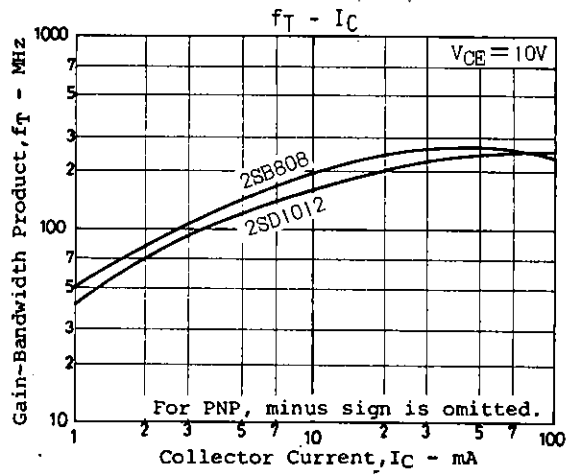
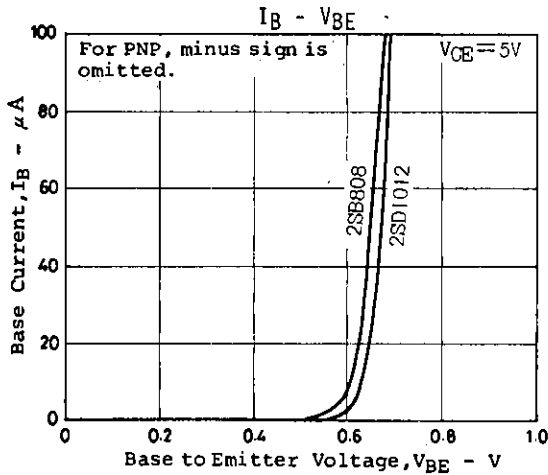
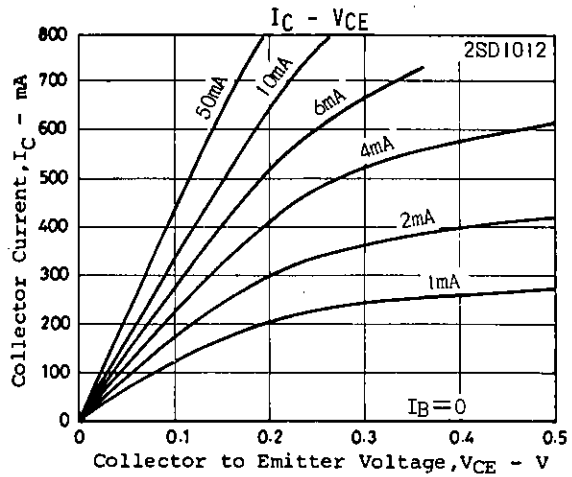
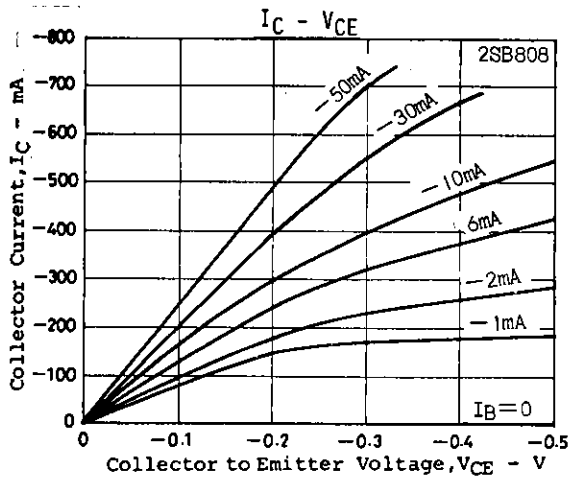
2SB808	160	F	320	280	G	560			
2SD1012	160	F	320	280	G	560	480	H	960



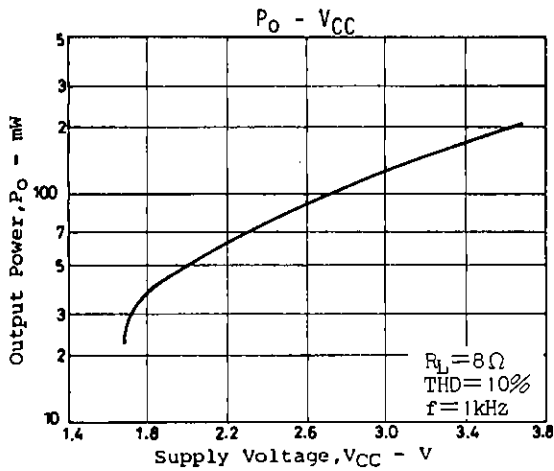
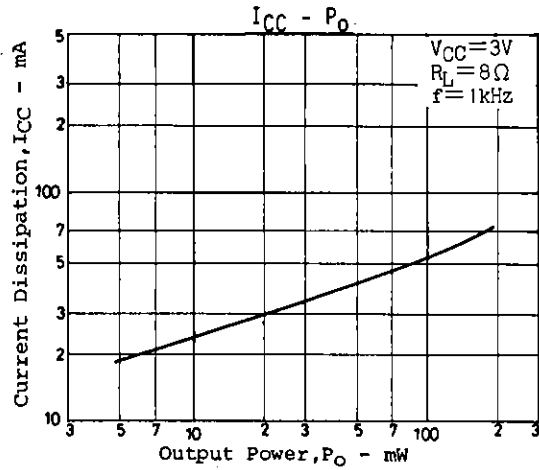
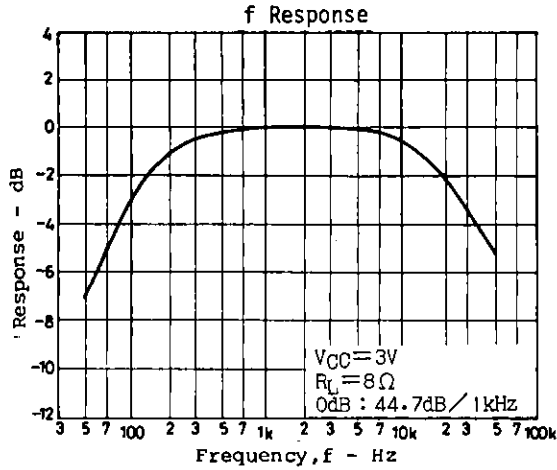
Package Dimensions 2033  
 (unit: mm)



B: Base  
 C: Collector  
 E: Emitter  
 SANYO: SPA







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