

SANYO

No.544G

2SA1011/2SC2344

PNP/NPN Epitaxial Planar Silicon Transistors
High-Voltage Switching, AF Power Amp,
100W Output Predriver Applications

() : 2SA1011

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

			unit
Collector-to-Base Voltage	V_{CBO}	(-) 180	V
Collector-to-Emitter Voltage	V_{CEO}	(-) 160	V
Emitter-to-Base Voltage	V_{EBO}	(-) 6	V
Collector Current	I_C	(-) 1.5	A
Collector Current (Pulse)	I_{CP}	(-) 3	A
Collector Dissipation	P_C	25	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	- 55 to + 150	$^\circ\text{C}$

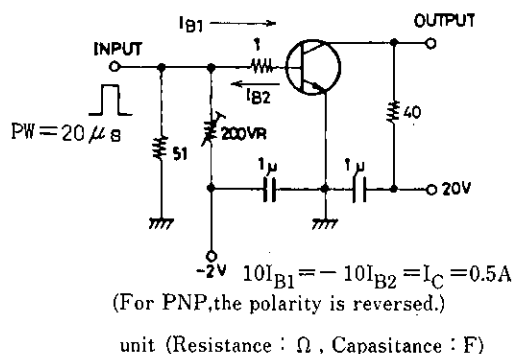
 $T_c=25^\circ\text{C}$ Electrical Characteristics at $T_a=25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-) 120\text{V}, I_E=0$			(-) 10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-) 4\text{V}, I_C=0$			(-) 10	μA
DC Current Gain	h_{FE}	$V_{CE}=(-) 5\text{V}, I_C=(-) 300\text{mA}$	60 ※		200 ※	
Gain-Bandwidth Product	f_T	$V_{CE}=(-) 10\text{V}, I_C=(-) 50\text{mA}$		100		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-) 10\text{V}, f=1\text{MHz}$		(30)		pF
				23		pF
Base-to-Emitter Voltage	V_{BE}	$V_{CE}=(-) 5\text{V}, I_C=(-) 10\text{mA}$	(-) 1.5			V
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-) 500\text{mA}, I_B=(-) 50\text{mA}$	(- 0.5)			V
			0.3			V
C-B Breakdown Voltage	$V_{(BR) CBO}$	$I_C=(-) 1\text{mA}, I_E=0$	(-) 180			V
C-E Breakdown Voltage	$V_{(BR) CEO}$	$I_C=(-) 1\text{mA}, I_{BE}=\infty$	(-) 160			V
E-B Breakdown Voltage	$V_{(BR) EBO}$	$I_E=(-) 1\text{mA}, I_C=0$	(-) 6			V
Turn-ON Time	t_{on}	See specified Test Circuit.	(0.29)	0.15		μs
Fall Time	t_f	"	(0.19)	0.48		μs
Storage Time	t_{stg}	"	(0.48)	0.81		μs

※ The 2SA1011/2SC2344 are classified by 300mA h_{FE} as follows :

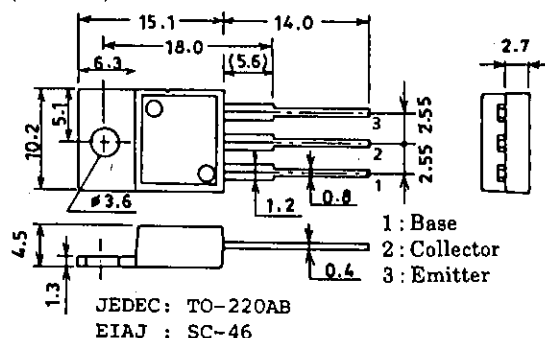
60	D	120	100	E	200
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Switching Time Test Circuit

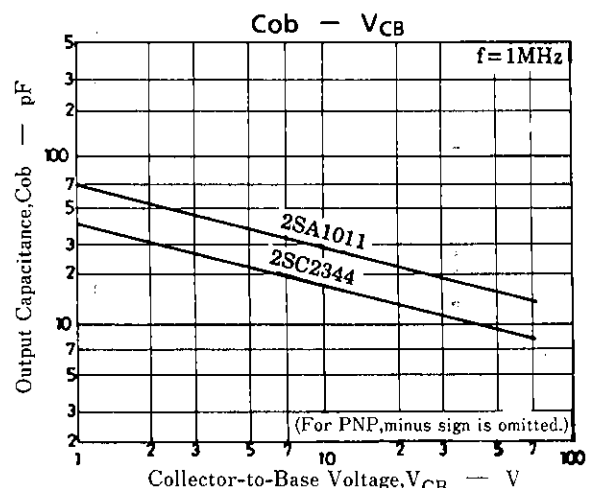
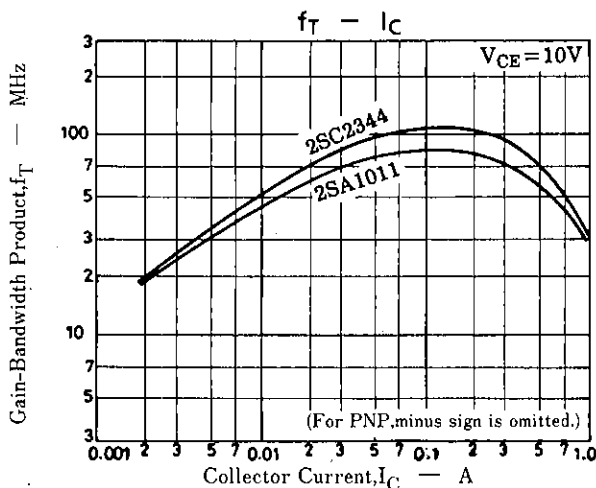
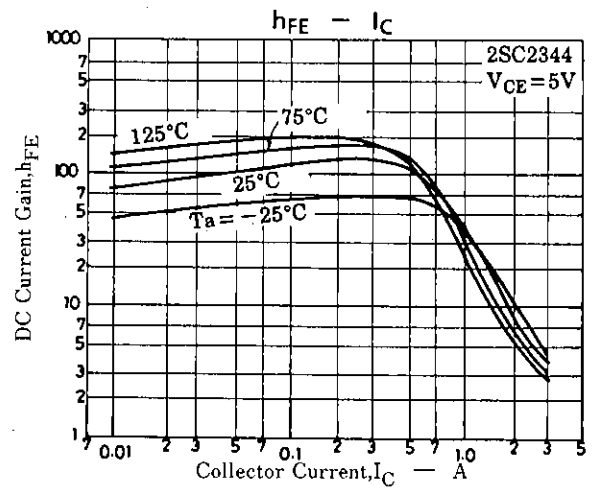
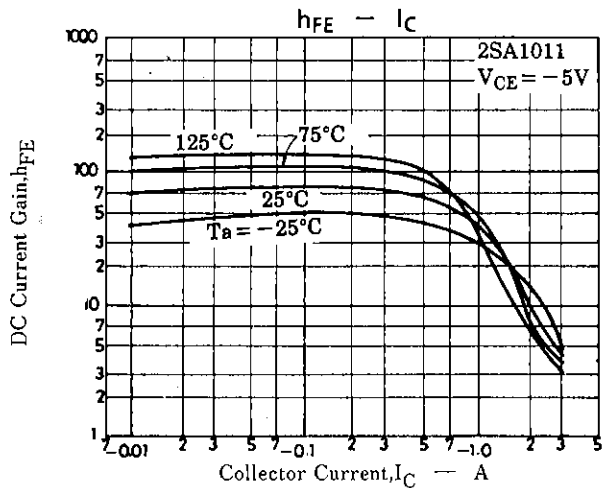
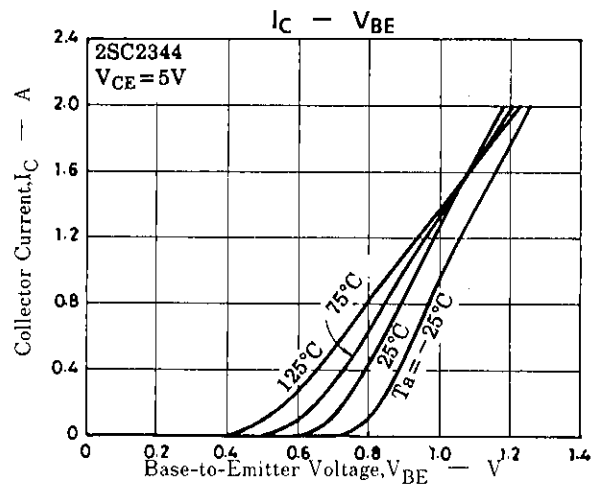
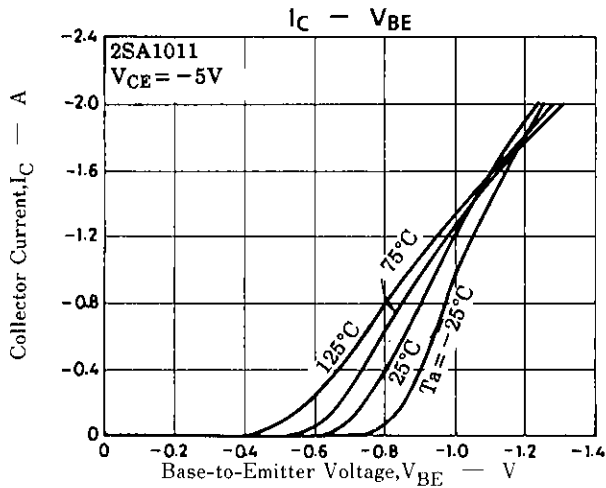
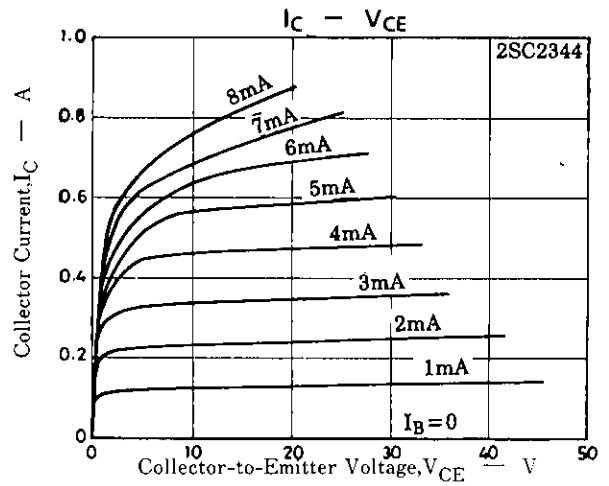
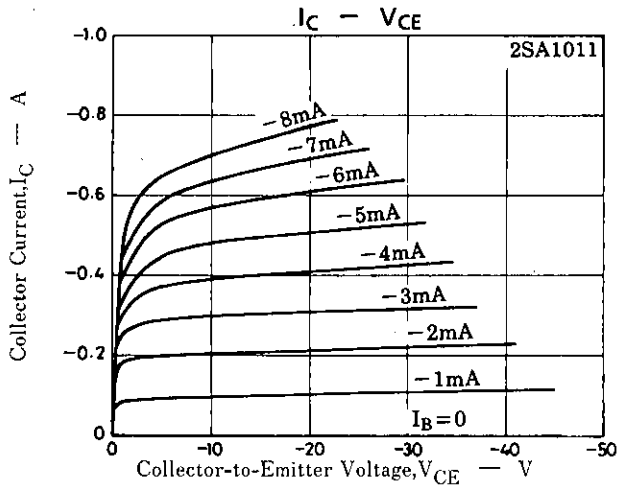


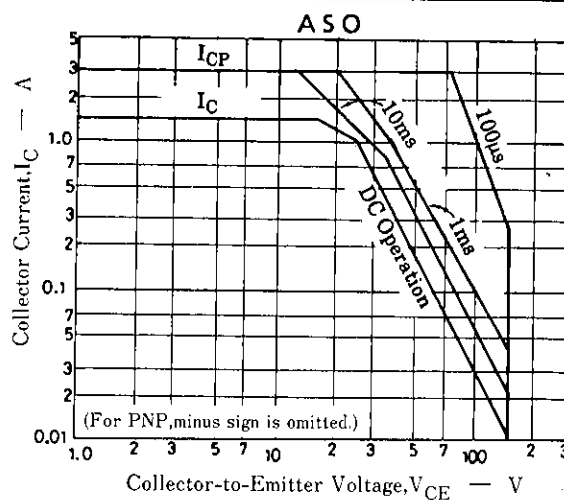
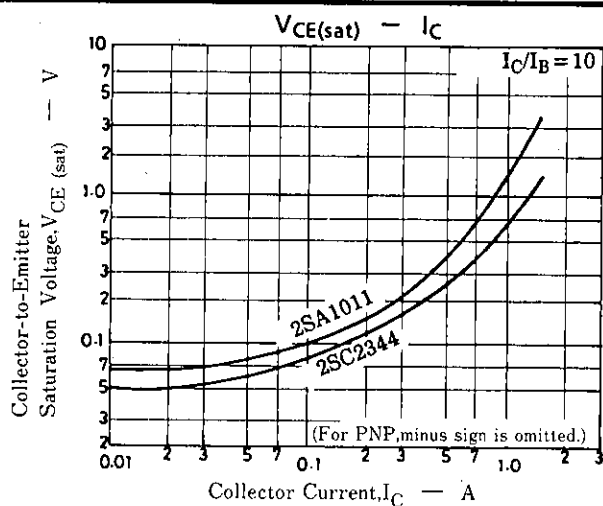
Package Dimensions 2010C

(unit : mm)



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