



No.544G

2SA1011/2SC2344

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

() : 2SA1011

Maximum Ratings at Ta=25°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	°C
Storage Temperature	T_{stg}	- 55 to + 150	°C

$T_c=25^\circ C$

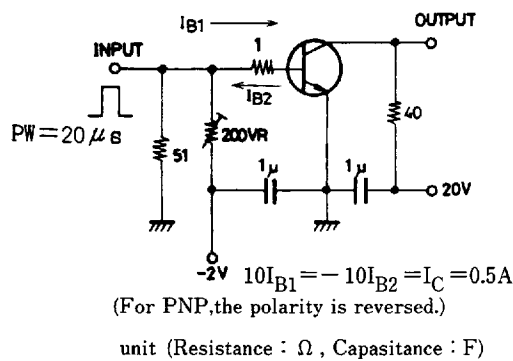
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-) 120V, I_E = 0$			(-) 10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-) 4V, I_C = 0$			(-) 10	μA
DC Current Gain	h_{FE}	$V_{CE} = (-) 5V, I_C = (-) 300mA$	60 *		200 *	
Gain-Bandwidth Product	f_T	$V_{CE} = (-) 10V, I_C = (-) 50mA$		100		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-) 10V, f = 1MHz$		(30)		pF
				23		pF
Base-to-Emitter Voltage	V_{BE}	$V_{CE} = (-) 5V, I_C = (-) 10mA$		(-) 1.5		V
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-) 500mA, I_B = (-) 50mA$		(- 0.5)		V
				0.3		V
C-B Breakdown Voltage	$V_{(BR) CBO}$	$I_C = (-) 1mA, I_E = 0$	(-) 180			V
C-E Breakdown Voltage	$V_{(BR) CEO}$	$I_C = (-) 1mA, I_{BE} = \infty$	(-) 160			V
E-B Breakdown Voltage	$V_{(BR) EBO}$	$I_E = (-) 1mA, I_C = 0$	(-) 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

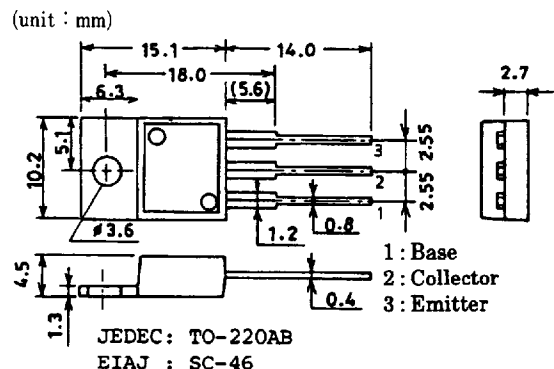
* The 2SA1011/2SC2344 are classified by 300mA h_{FE} as follows :

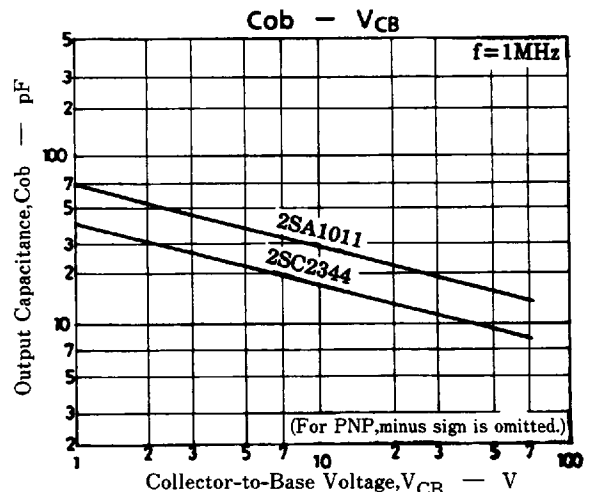
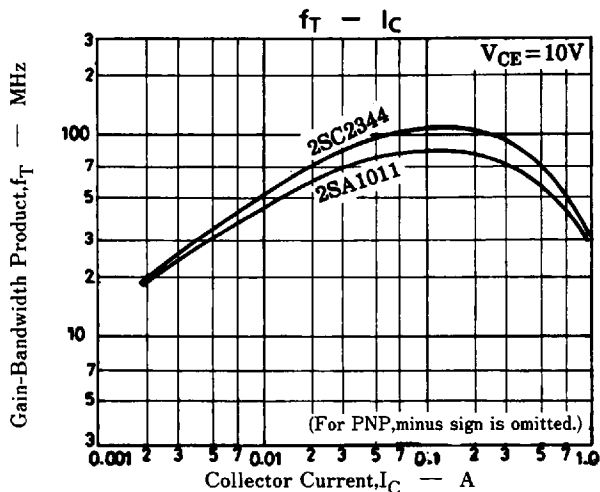
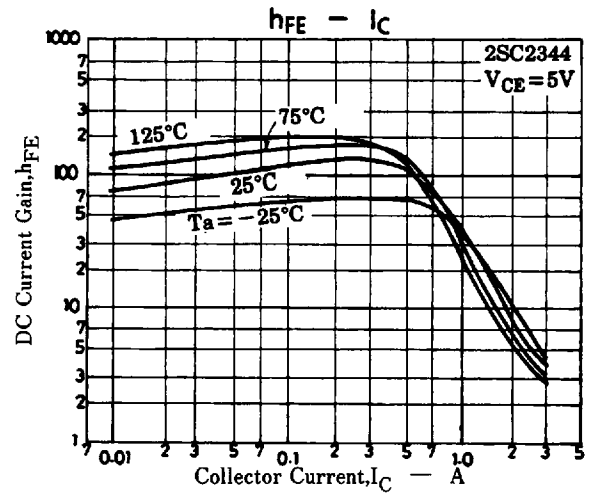
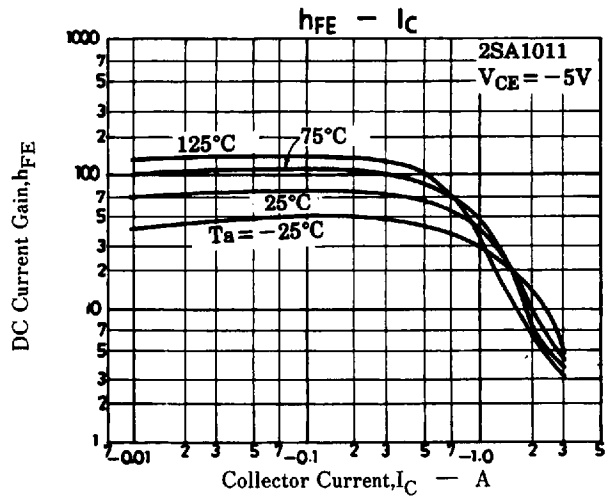
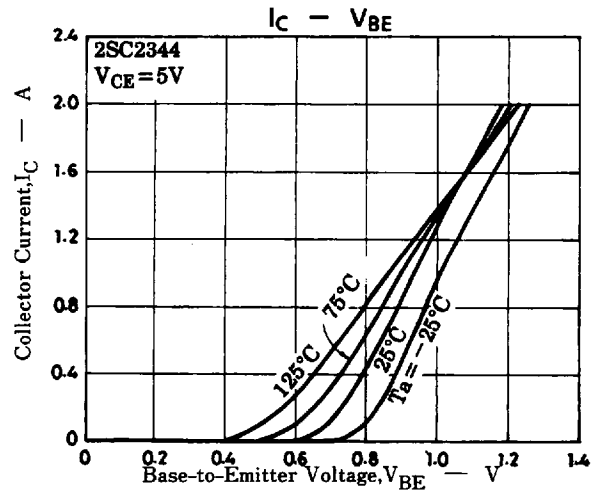
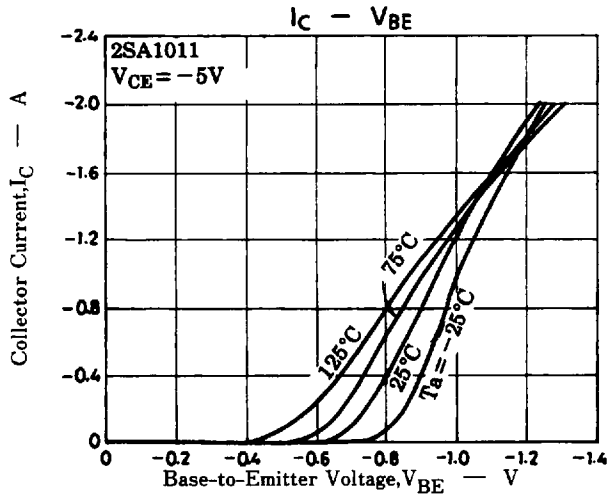
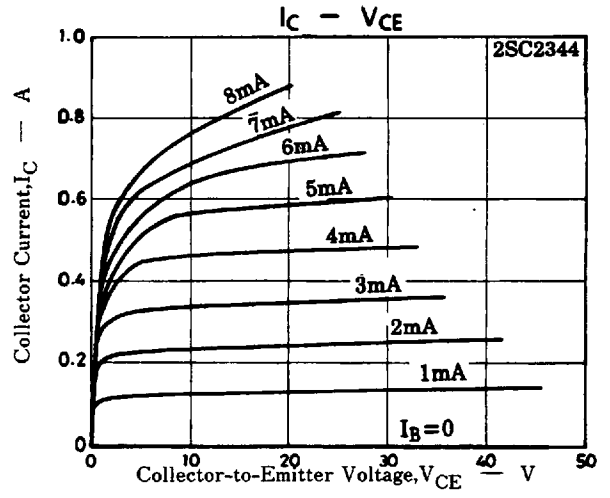
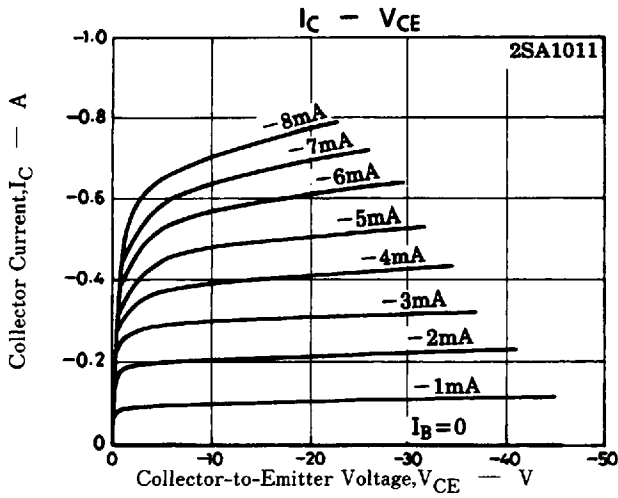
60	D	120	100	E	200
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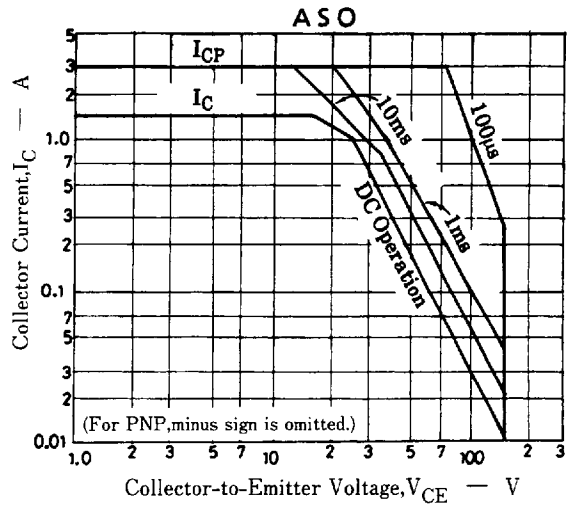
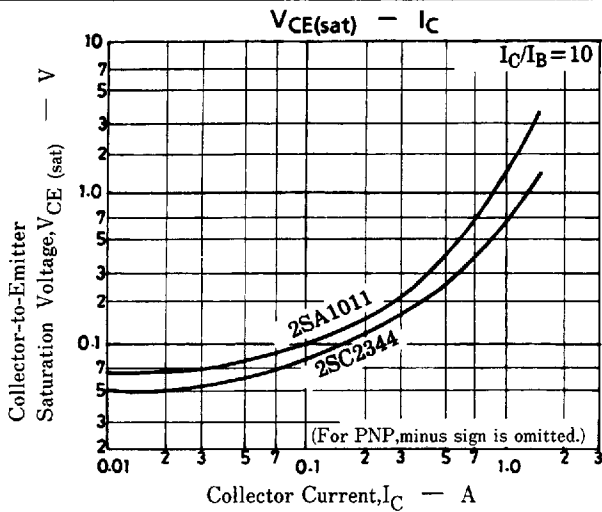
Switching Time Test Circuit



Package Dimensions 2010C







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