

SANYO	No.2089B	2SA1477/2SC3787
		PNP/NPN Epitaxial Planar Silicon Transistors

High-Voltage Switching Applications

Applications

- Predrivers for 100W power amplifiers.

Features

- Adoption of FBET process.
- Excellent linearity of h_{FE} .
- Small Cob.
- Plastic-covered heat sink facilitating high-density mounting (TO126ML package).

() : 2SA1477

Absolute 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}	(-) 5	V
Collector Current	I_C	(-) 140	mA
Collector Current (Pulse)	I_{CP}	(-) 200	mA
Collector Dissipation	P_C	1.3	W
		10	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

$T_c = 25^\circ\text{C}$

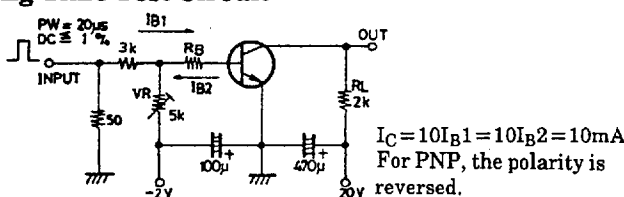
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)120\text{V}, I_E = 0$		(-) 100		nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4\text{V}, I_C = 0$		(-) 100		nA
DC Current Gain	h_{FE}^*	$V_{CE} = (-)5\text{V}, I_C = (-)10\text{mA}$	100		400	
Gain Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)10\text{mA}$		150		MHz
Output Capacitance	Cob	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(4.0)		pF
				3.0		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$		(-140)	(-400)	mV
				70	300	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	$(-)180$			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	$(-)160$			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu\text{A}, I_C = 0$	$(-)5$			V
Rise Time	t_{on}	See specified Test Circuit.		0.1		μs
Storage Time	t_{stg}	"		1.5		μs
Fall Time	t_f	"		0.1		μs

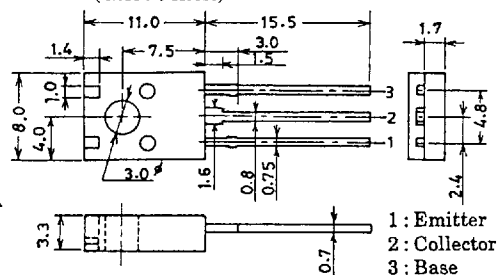
* : The 2SA1477/2SC3787 are classified by 10mA h_{FE} as follows : **Package Dimensions** 2042B

100 R	200	140 S	280	200 T	400
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Switching Time Test Circuit



Unit (Resistance : Ω , Capacitance : F)



SANYO: TO126ML

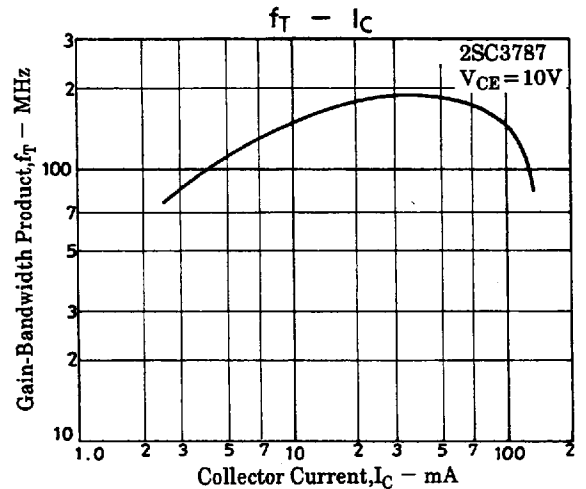
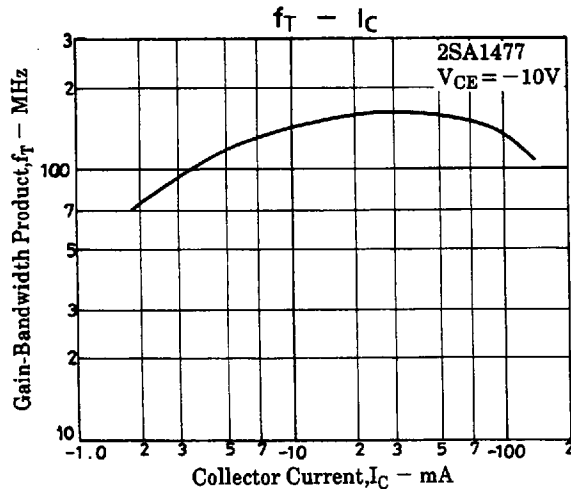
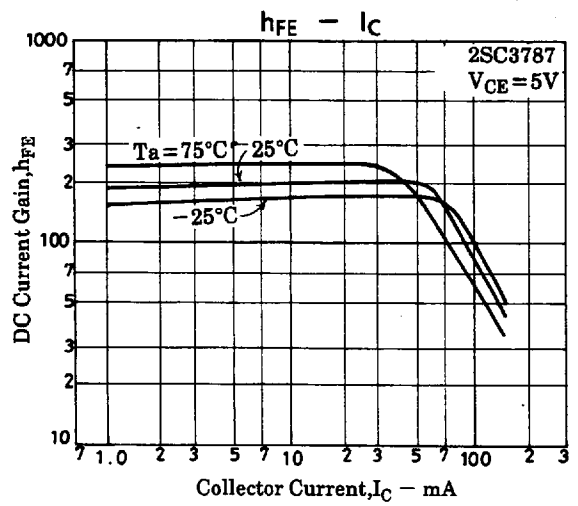
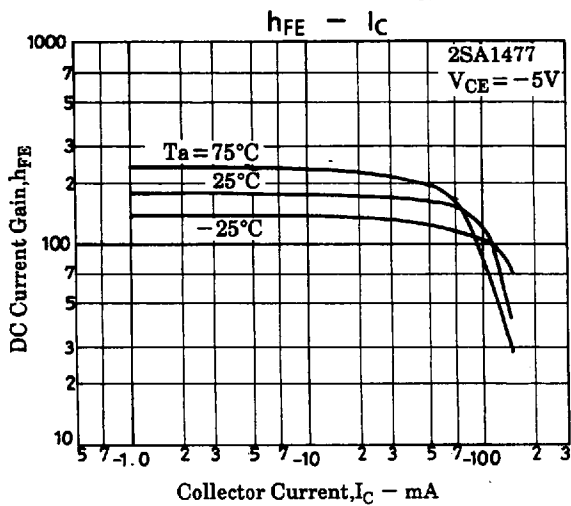
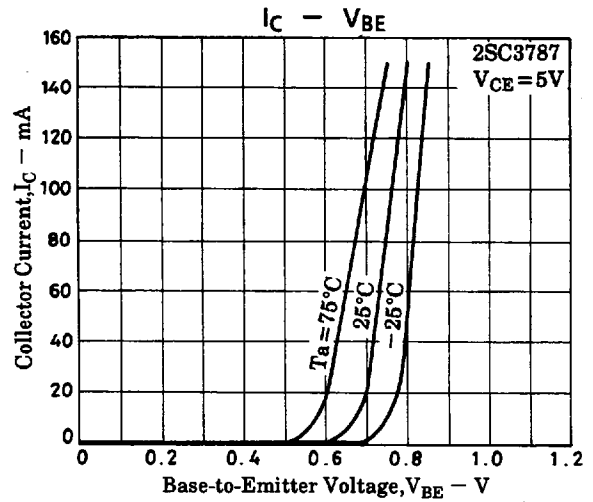
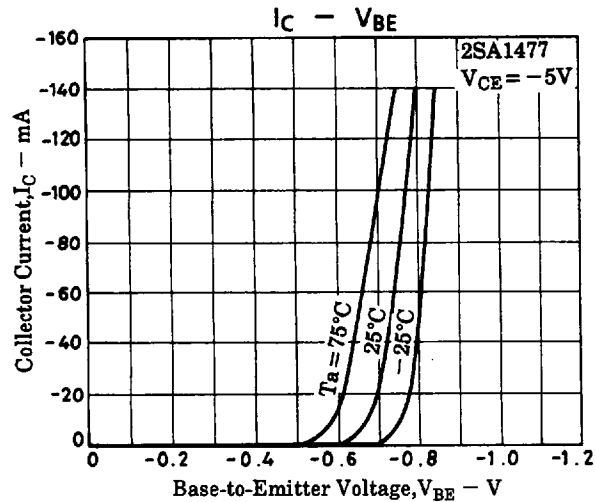
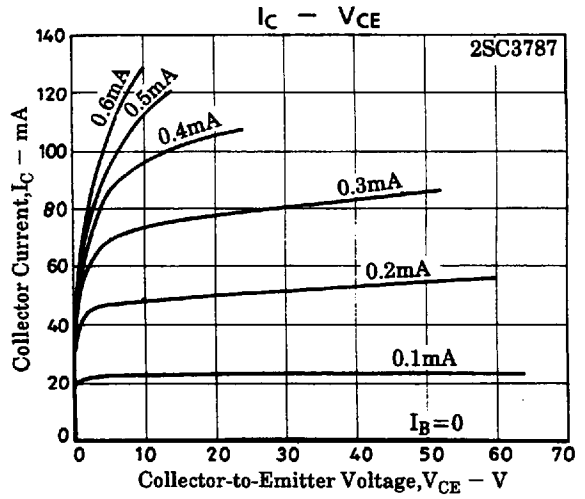
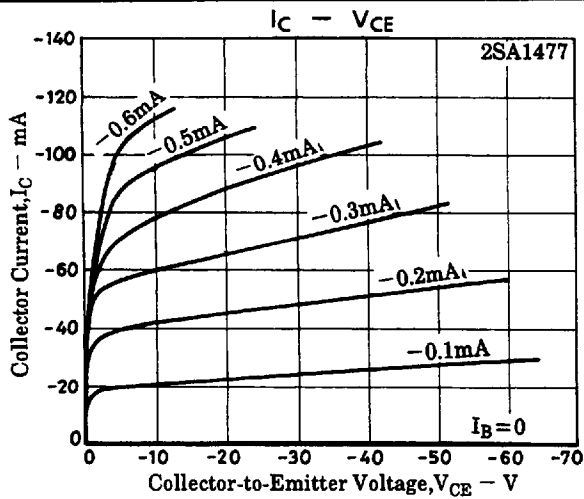
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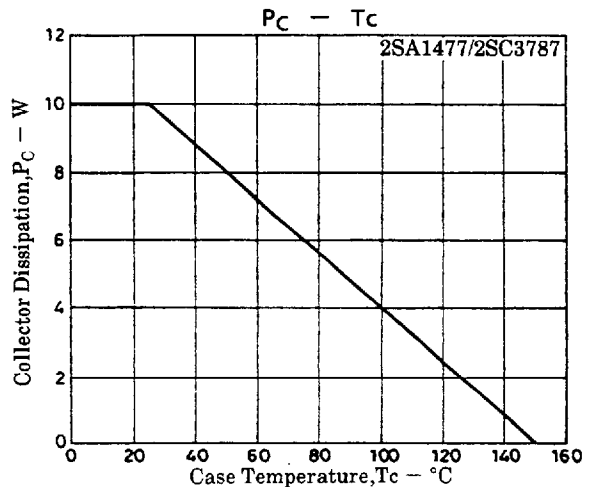
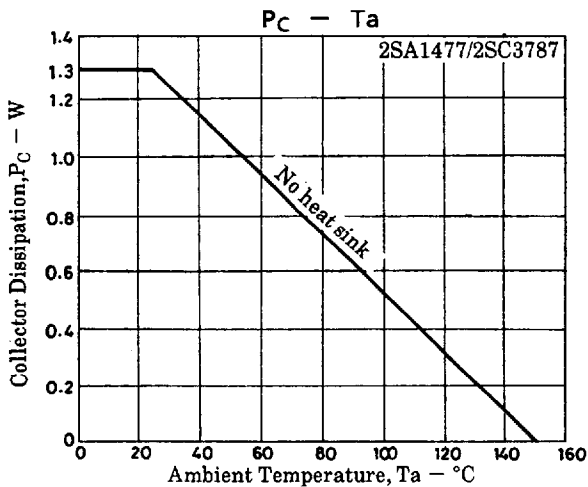
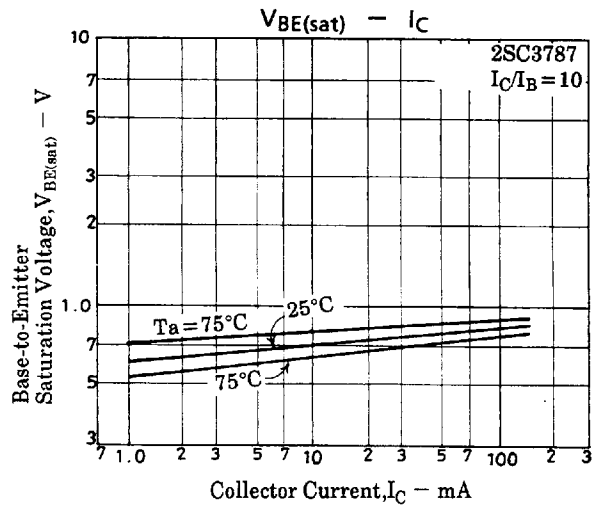
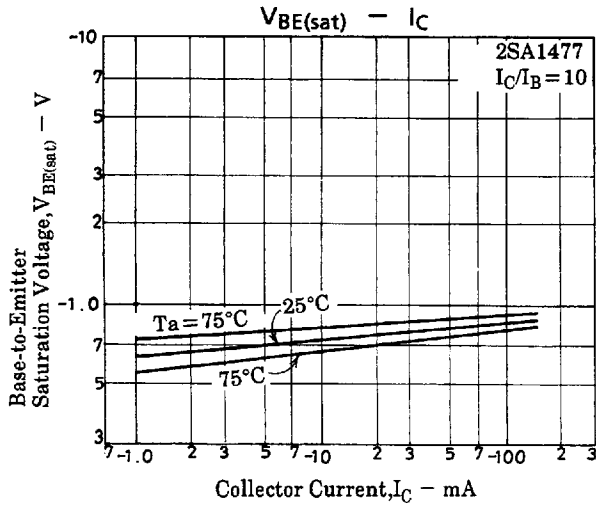
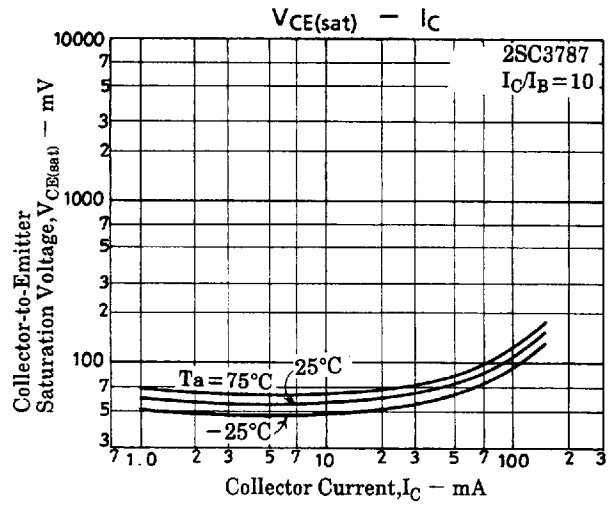
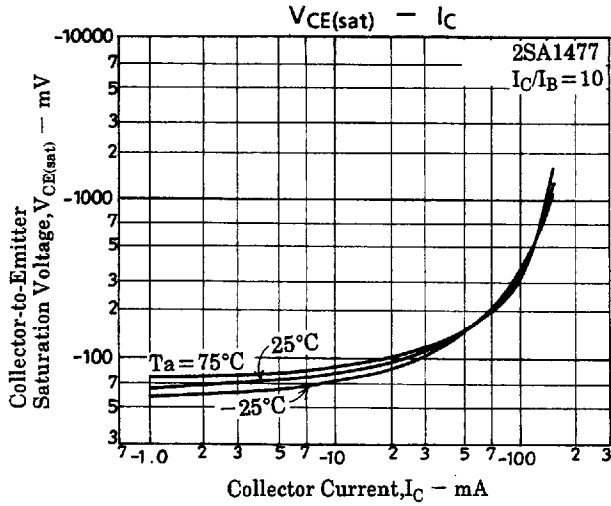
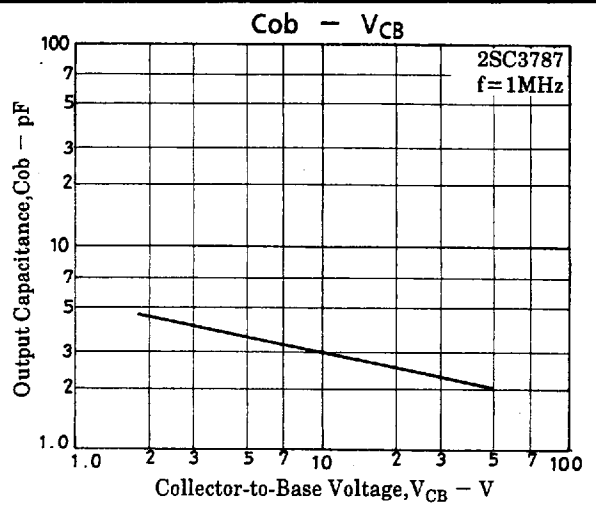
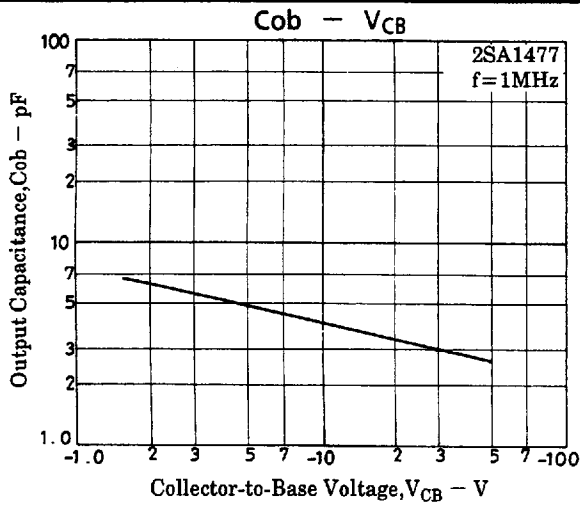
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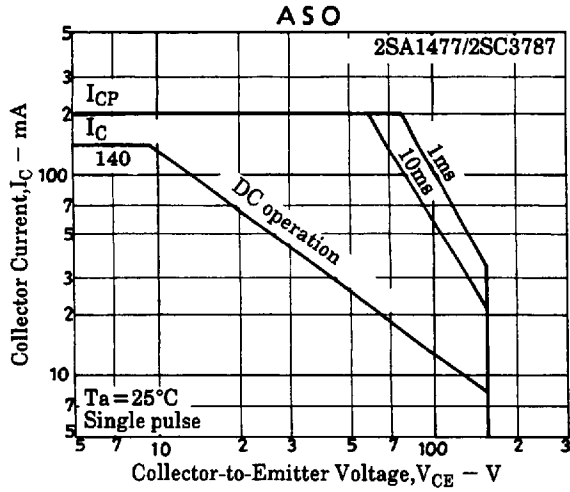
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