



2SA1253/2SC3135

High- h_{FE} , AF Amp Applications

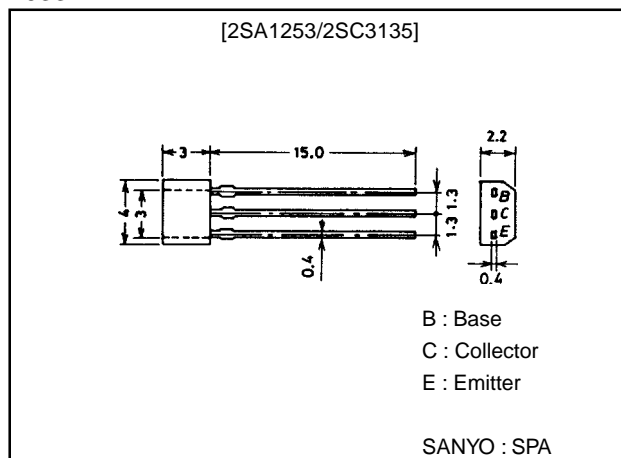
Features

- High V_{EBO} .
- Wide ASO and high durability against breakdown.

Package Dimensions

unit:mm

2033



() : 2SA1253

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-)60	V
Collector-to-Emitter Voltage	V_{CEO}		(-)50	V
Emitter-to-Base Voltage	V_{EBO}		(-)15	V
Collector Current	I_C		(-)200	mA
Collector Current (Pulse)	I_{CP}		(-)400	mA
Collector Dissipation	P_C		250	mW
Junction Temperature	T_j		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

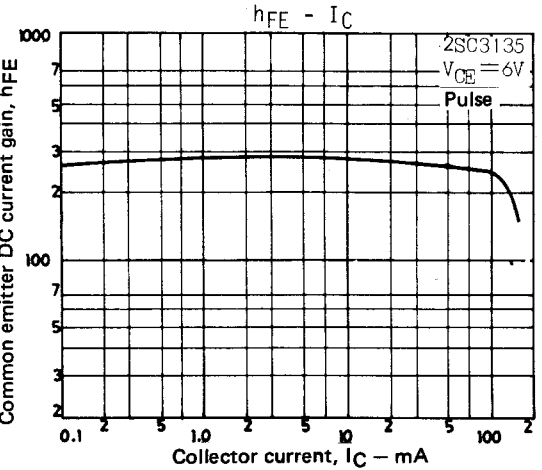
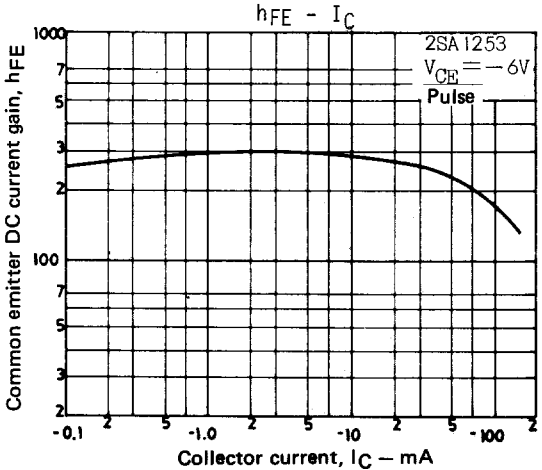
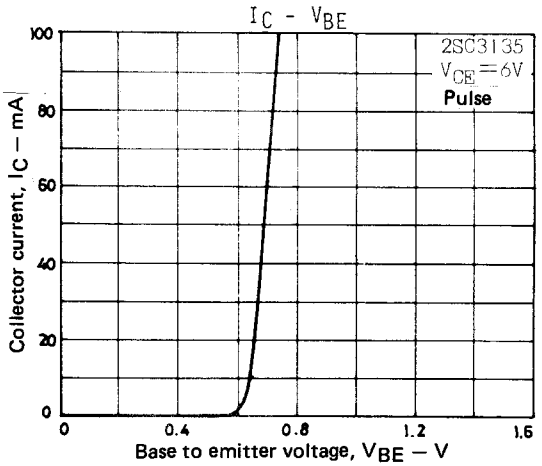
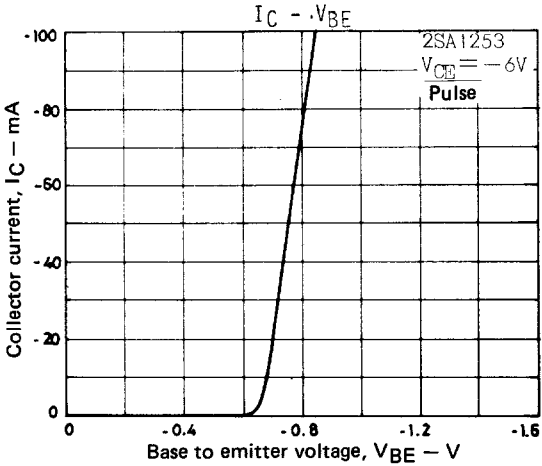
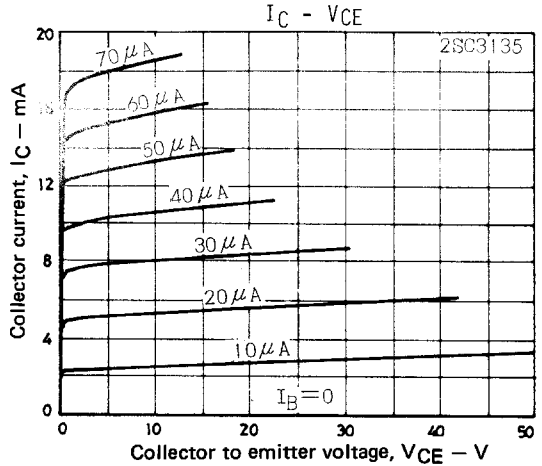
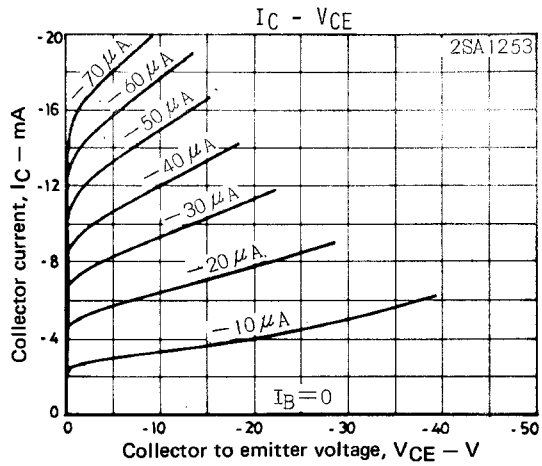
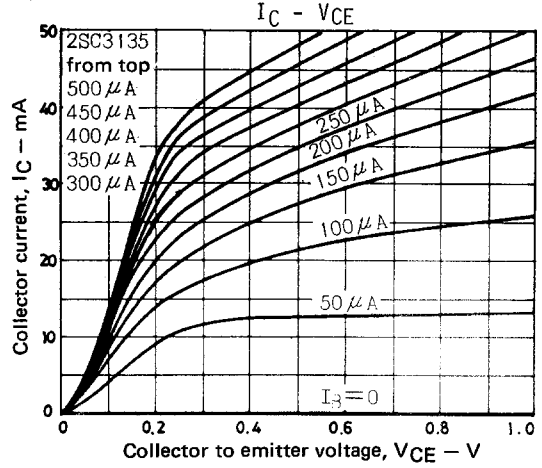
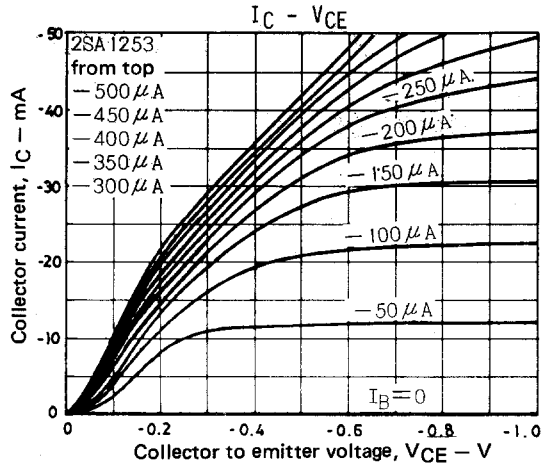
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)10\text{V}, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$	100*		560*	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)6\text{V}, I_C=(-)1\text{mA}$		100		MHz
Common Base Output Capacitance	C_{ob}	$V_{CB}=(-)6\text{V}, f=1\text{MHz}$		(3.8) 2.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)50\text{mA}, I_B=(-)5\text{mA}$		(-0.2) 0.15	(-)0.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-)15			V

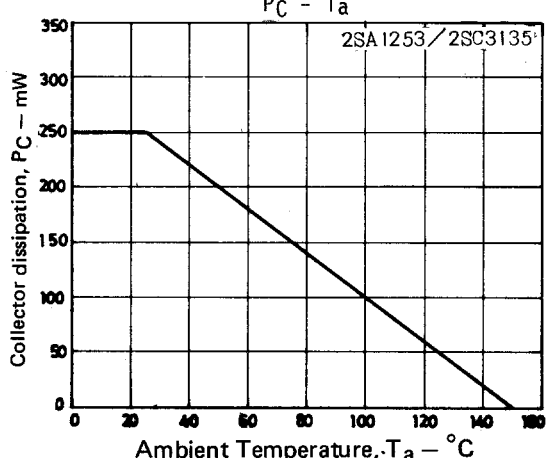
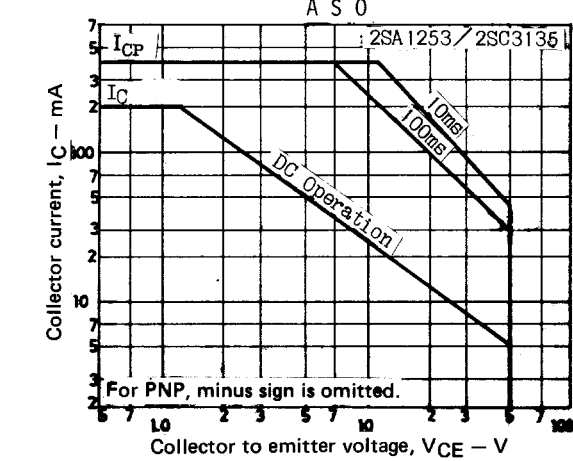
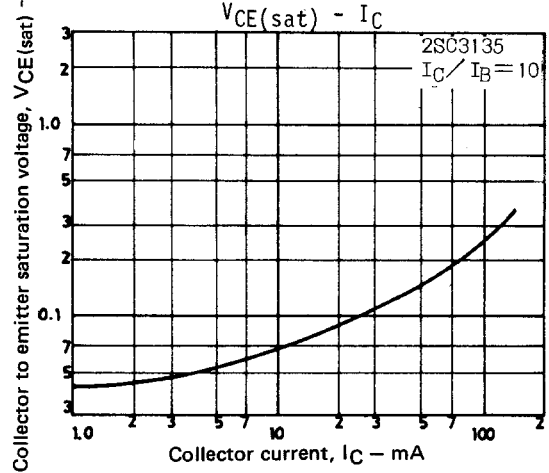
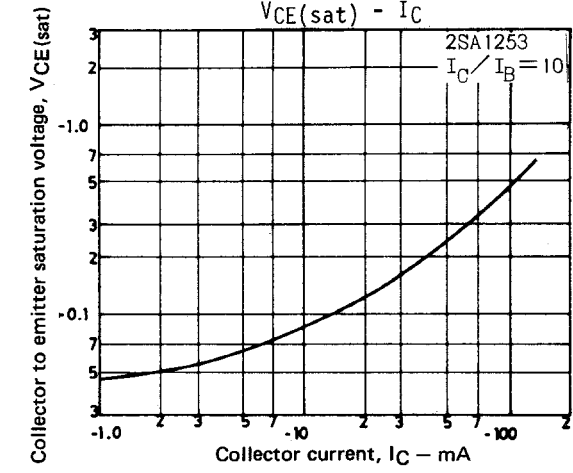
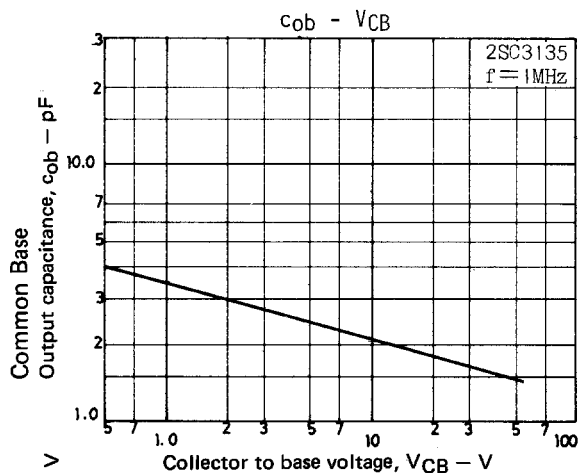
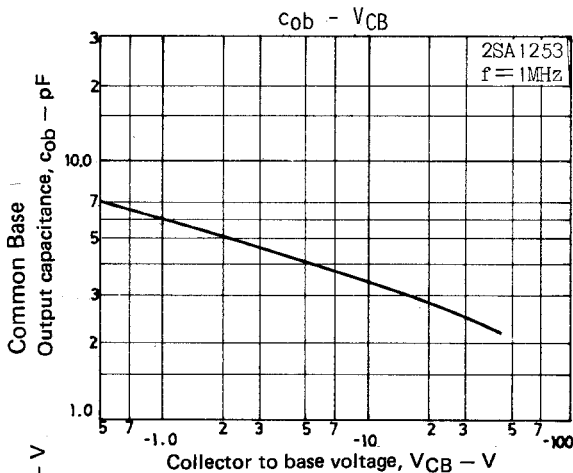
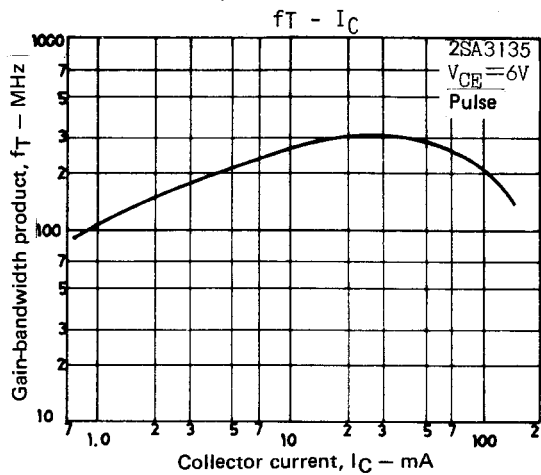
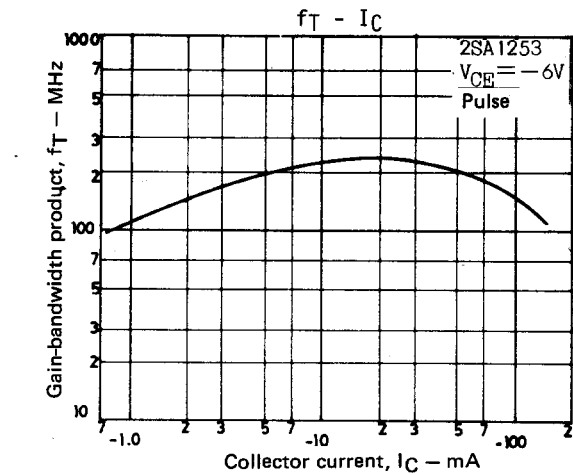
* : The 2SA1253/2SC3135 are classified by 1mA h_{FE} as follows :

100	R	200	140	S	280	200	T	400	280	U	560
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2SA1253/2SC3135



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