	No.2370	2SA1292/2SC3256
	PNP/NPN Epitaxial Planar Silicon Transistors	
60V/15A High-Speed Switching Applications		

Applications

- . Various inductance, lamp drivers for electrical equipment
- . Inverters, converters (strobe, flash, fluorescent lamp lighting circuit)
- . Power amp (high-power car stereo, motor control)
- . High-speed switching (switching regulator, driver)

Features

- . Low saturation voltage
- . Excellent dependence of h_{FE} on current
- . Fast switching time

(): 2SA1292

Absolute Maximum Ratings at Ta=25°C

			unit
Collector-to-Base Voltage	V_{CB0}	(-)80	V
Collector-to-Emitter Voltage	V_{CE0}	(-)60	V
Emitter-to-Base Voltage	V_{EBO}	(-)5	V
Collector Current	I_C	(-)15	A
Collector Current (Pulse)	I_{CP}	(-)20	A
Collector Dissipation	P_C	80	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

$T_c=25^\circ C$

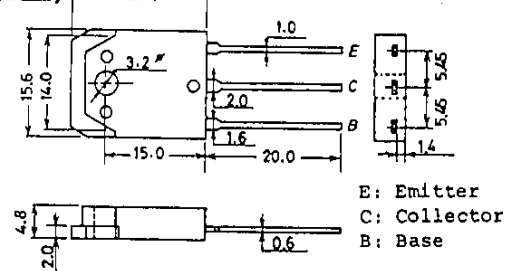
Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=(-)40V, I_E=0$			(-)0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-)0.1	mA
DC Current Gain	h_{FE}	$V_{CE}=(-)2V, I_C=(-)1A$	70*		280*	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)1A$		100		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)7.5A, I_B=(-)0.375A$			(-)0.4	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)1mA, I_E=0$	(-)80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)1mA, I_C=0$	(-)5			V

Continued on next page.

Package Dimensions 2022

(unit:mm)



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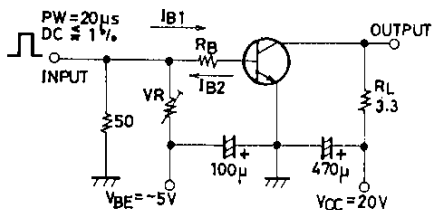
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		See specified Test Circuit.	min	typ	max	unit
Rise Time	t_{on}			0.1		μs
Storage Time	t_{stg}			0.5		μs
Fall Time	t_f			0.1		μs

*: The 2SA1292/2SC3256 are classified by 1A h_{FE} as follows:

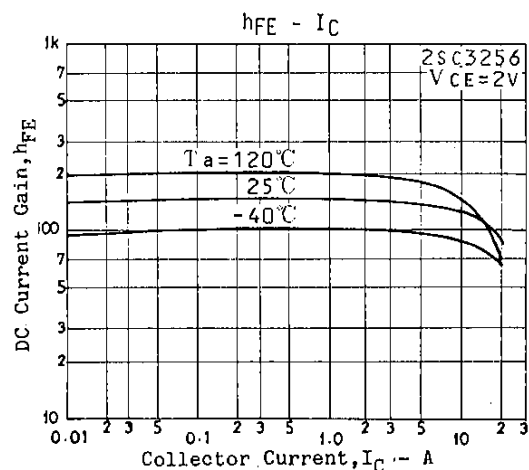
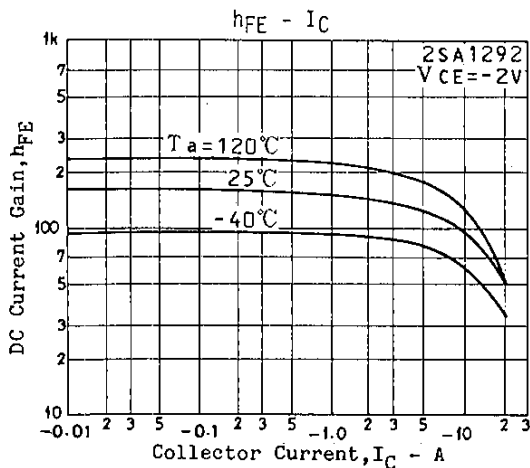
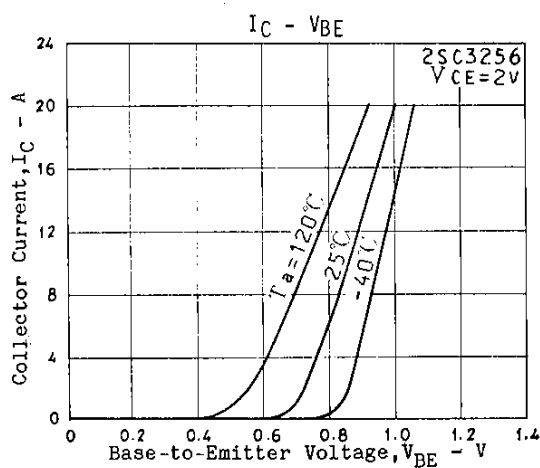
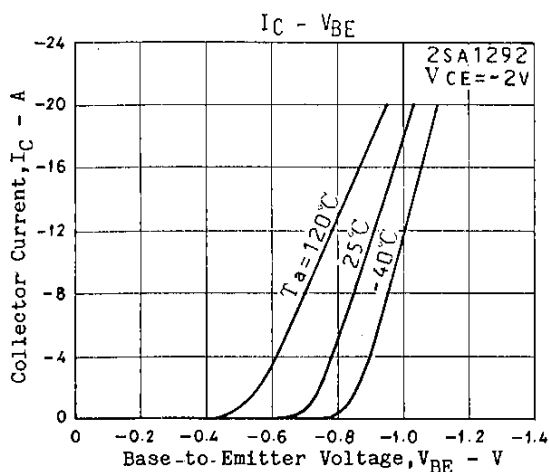
70	Q	140	100	R	200	140	S	280
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Switching Time Test Circuit

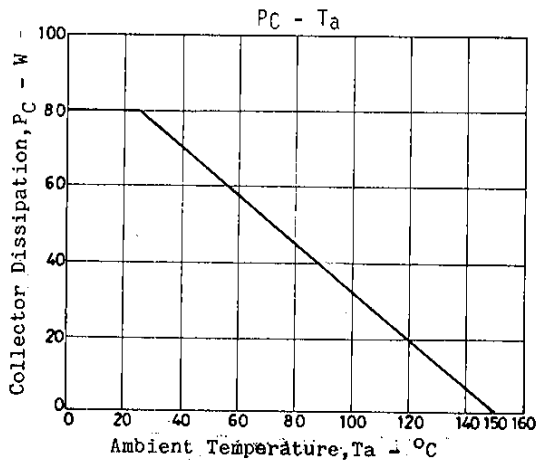
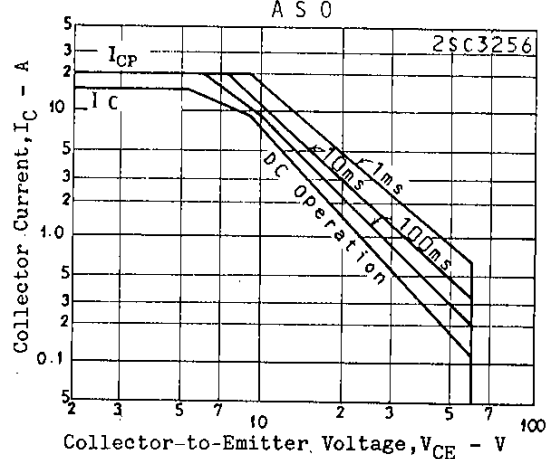
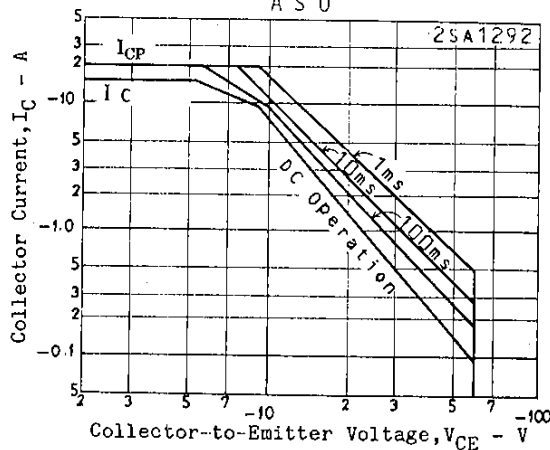
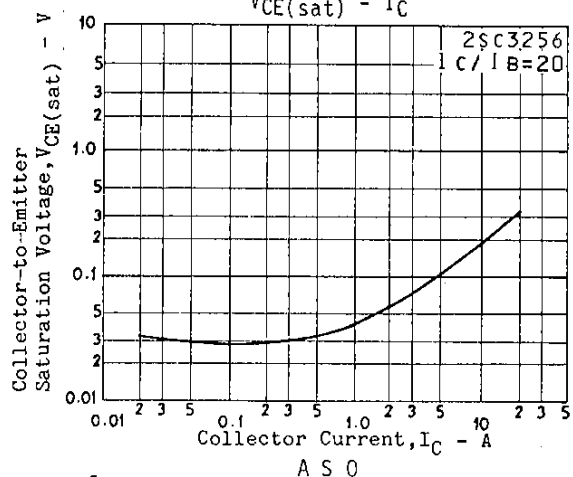
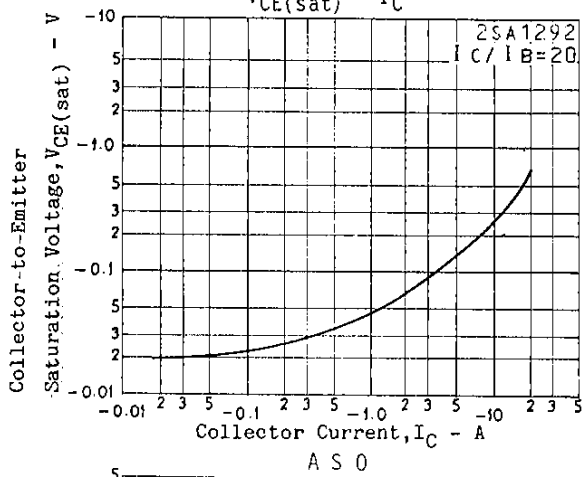
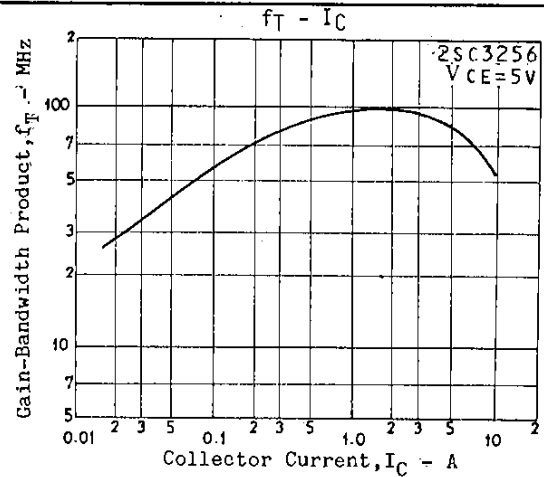
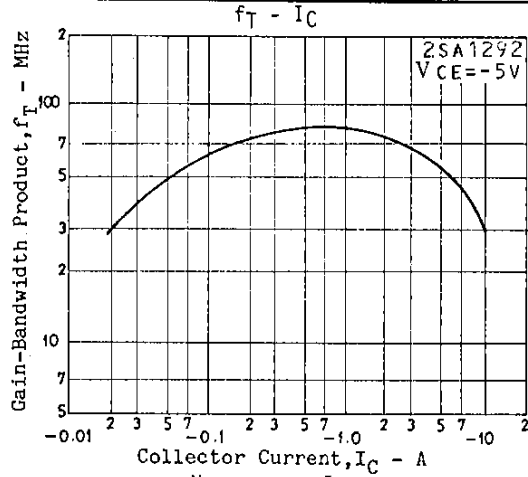


For PNP, the polarity is reversed. $20|I_{B1}| = -20|I_{B2}| = I_C = 6A$

Unit (resistance: Ω , capacitance: F)



2SA1292/2SC3256



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