

<b>SANYO</b>	No.1973A	<b>2SA1469/2SC3746</b>
		PNP/NPN Epitaxial Planar Silicon Transistors <b>60V/5A High-Speed Switching Applications</b>

**Applications**

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

**Features**

- Low saturation voltage.
- Excellent current dependence of  $h_{FE}$ .
- Short switching time.
- Micaless package facilitating mounting.

( ) : 2SA1469

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

Collector-to-Base Voltage	$V_{CBO}$	(-)80	V
Collector-to-Emitter Voltage	$V_{CEO}$	(-)60	V
Emitter-to-Base Voltage	$V_{EBO}$	(-)5	V
Collector Current	$I_C$	(-)5	A
Collector Current (Pulse)	$I_{CP}$	(-)7	A
Collector Dissipation	$P_C$	2	W
		20	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

$T_c = 25^\circ C$

**Electrical Characteristics at  $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)40V, I_E = 0$			(-)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	$V_{CE(sat)}$	$I_C = (-)2.5A, I_B = (-)0.125A$			(-)0.4	V

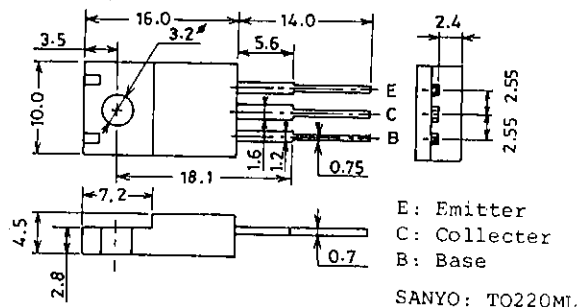
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\* : The 2SA1469/2SC3746 are classified by 1A  $h_{FE}$  as follows

70	Q	140	100	R	200	140	S	280
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**Package Dimensions 2041**

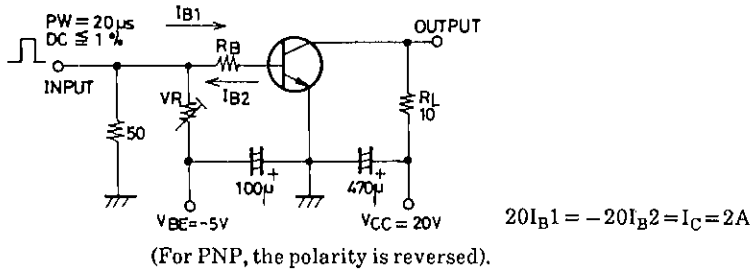
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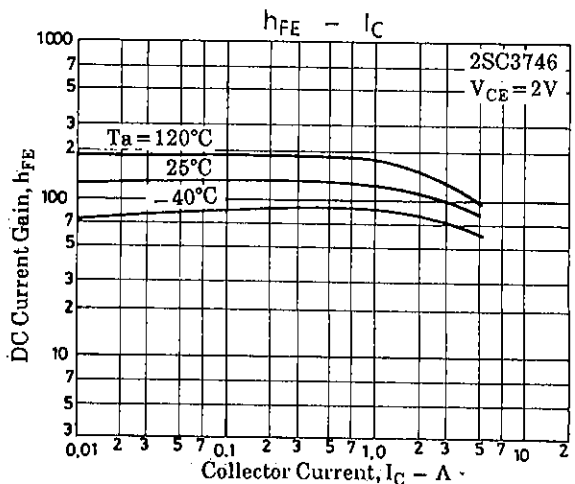
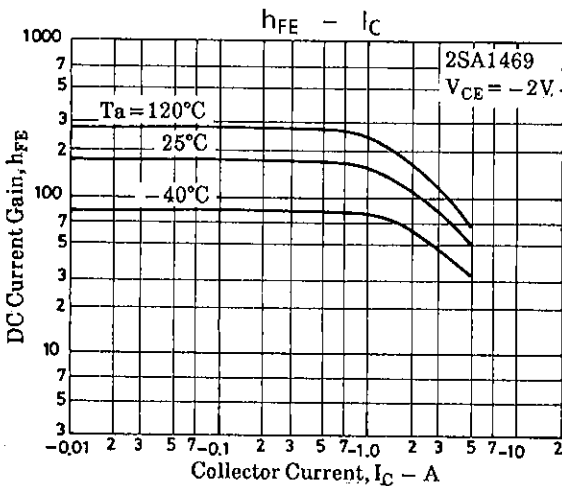
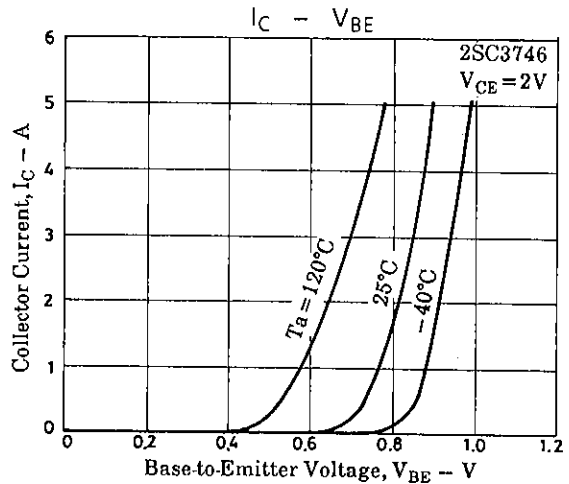
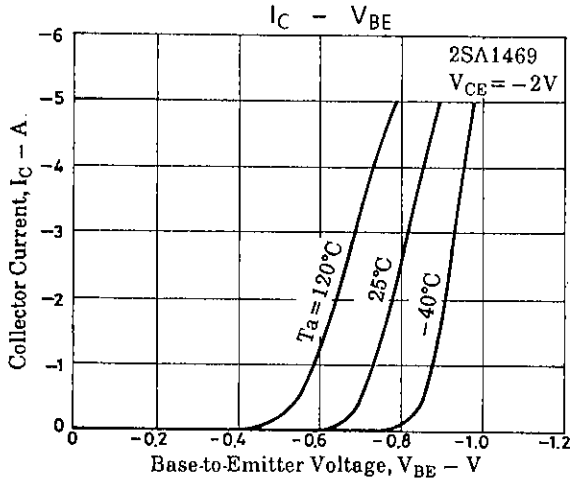
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			min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1mA, I_E = 0$	(-)80			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)60			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1mA, I_C = 0$	(-)5			V
Turn-on Time	$t_{on}$	See specified Test Circuit.		0.1		$\mu s$
Storage Time	$t_{stg}$	"		0.5		$\mu s$
Fall Time	$t_f$	"		0.1		$\mu s$

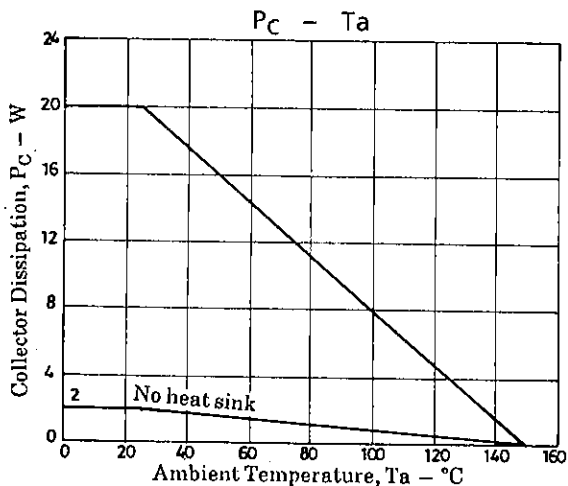
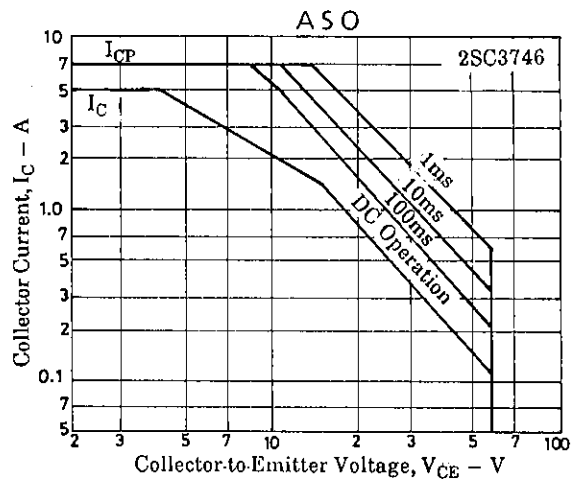
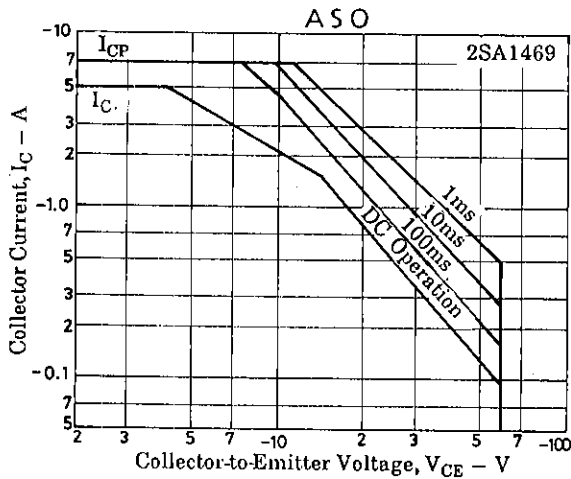
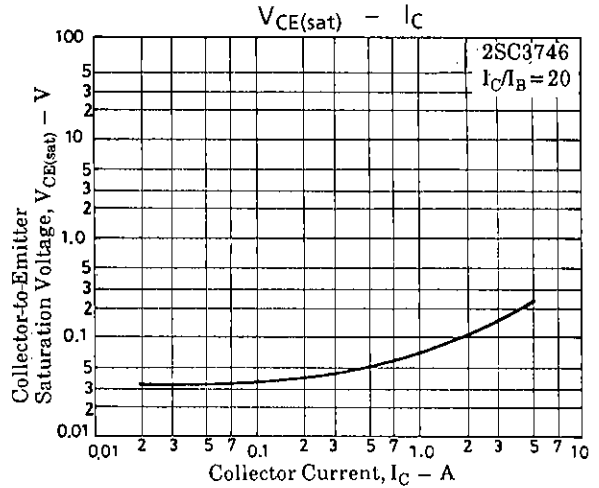
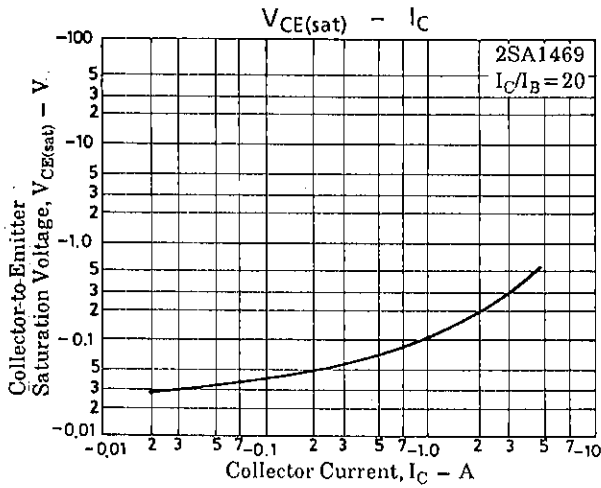
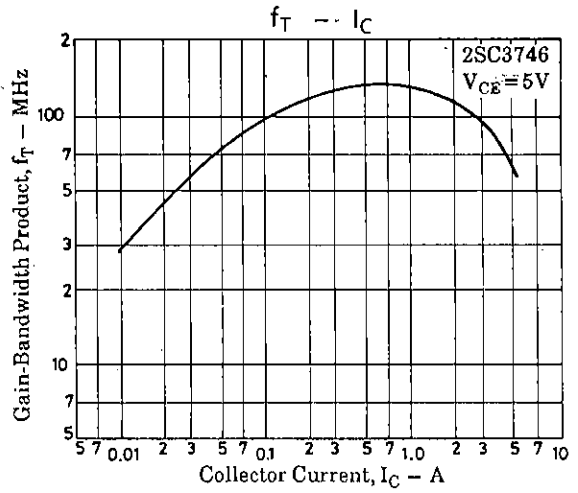
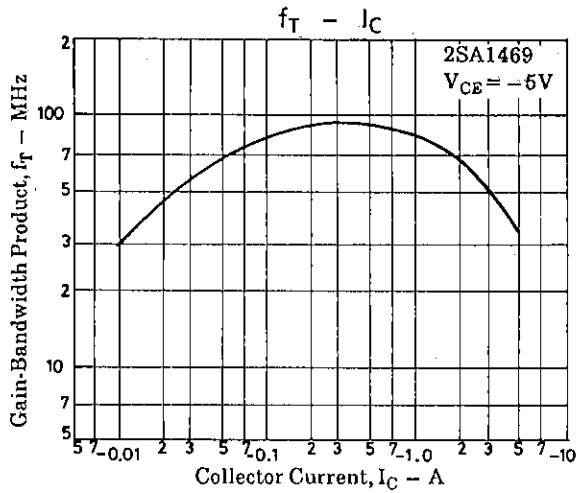
Switching Time Test Circuit



Unit (Resistance :  $\Omega$ , Capacitance : F)



# 2SA1469/2SC3746



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