

SANYO

No.1392A

2SA1339/2SC3393

PNP/NPN Epitaxial Planar Silicon Transistors

High-Speed Switching Applications**Features**

- Very small-sized package permitting sets to be small-sized, slim
- High breakdown voltage: $V_{CEO}=(-)50V$
- Complementary pair transistor having large current capacity and high f_T
- Adoption of FBET process

(): 2SA1339

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

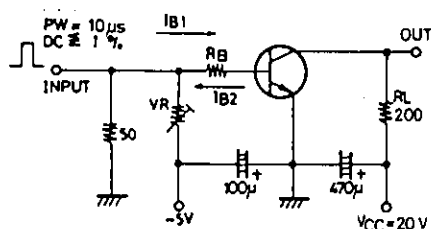
			unit
Collector to Base Voltage	V_{CBO}	$(-)60$	V
Collector to Emitter Voltage	V_{CEO}	$(-)50$	V
Emitter to Base Voltage	V_{EBO}	$(-)5$	V
Collector Current	I_C	$(-)500$	mA
Collector Current(Pulse)	I_{CP}	$(-)800$	mA
Collector Dissipation	P_C	300	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

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

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40V, I_E=0$			$(-)0.1$	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V$			$(-)0.1$	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)5V, I_C=(-)10mA$	100*		560*	
Gain Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		300 (200)		MHz
Output Capacitance	c_{ob}	$V_{CB}=(-)10V, f=1MHz$		3.7 (5.6)		pF
C-E Saturation Voltage	$V_{CE}(sat)$	$I_C=(-)100mA, I_B=(-)10mA$		0.1 (0.15)	0.3 (0.4)	V
B-E Saturation Voltage	$V_{BE}(sat)$	$I_C=(-)100mA, I_B=(-)10mA$		0.8	1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	$(-)60$			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)100\mu A, R_{BE}=\infty$	$(-)50$			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=\infty$	$(-)5$			V
Rise Time	t_{on}	$V_{CC}=20V$		70 (70)		ns
Storage Time	t_{stg}	$I_C=10I_{B1}=-10I_{B2}=100mA$		400 (400)		ns
Fall Time	t_f			70 (50)		ns

* : The 2SA1339/2SC3393 are classified by 10mA h_{FE} as follows:

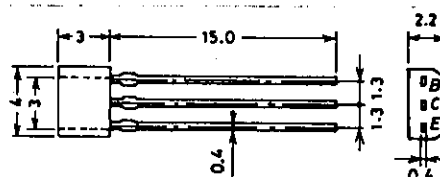
100	R	200	140	S	280
200	T	400	280	U	560

Switching Time Test Circuit

(For PNP, the polarity is reversed.)

Unit(Resistance: Ω , Capacitance: F)**Package Dimensions 2033**

(unit: mm)

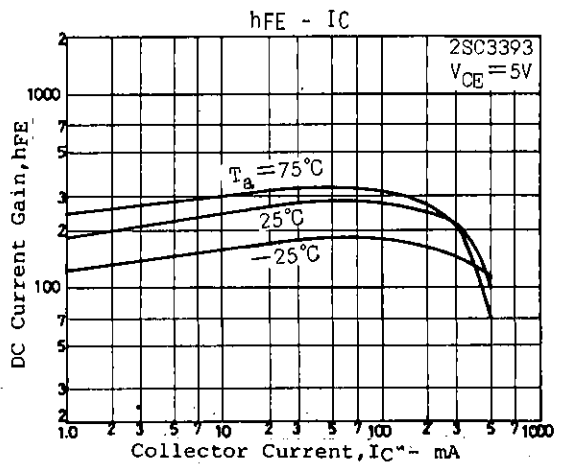
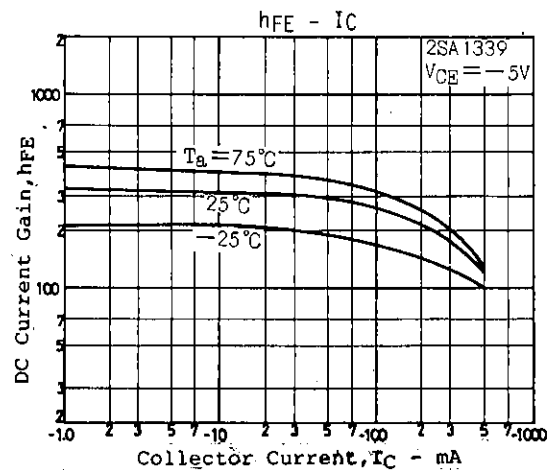
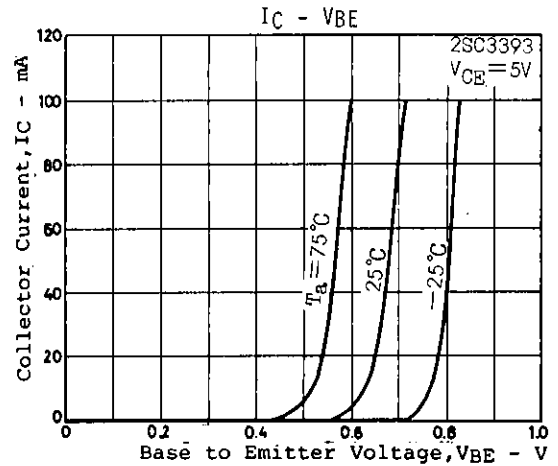
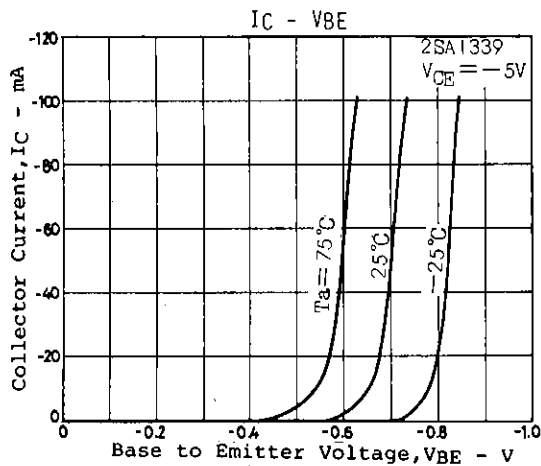
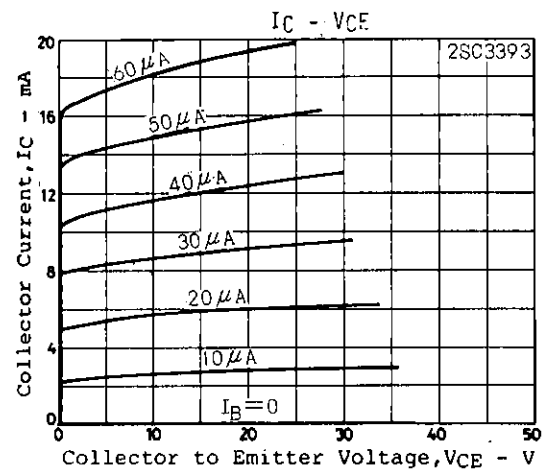
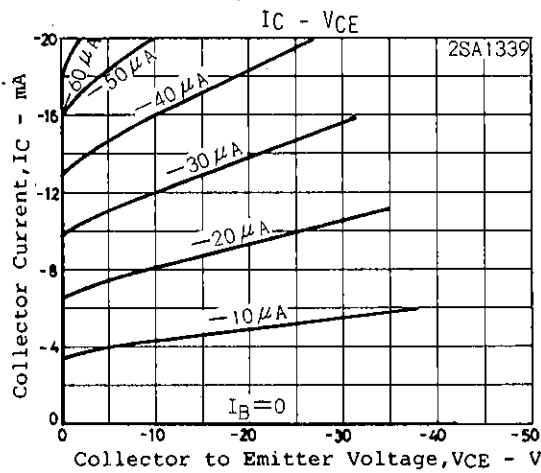
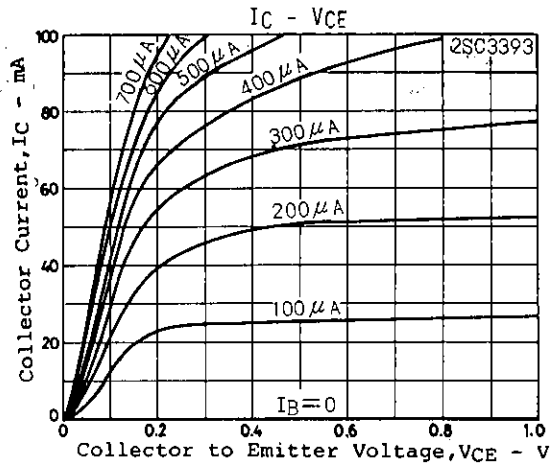
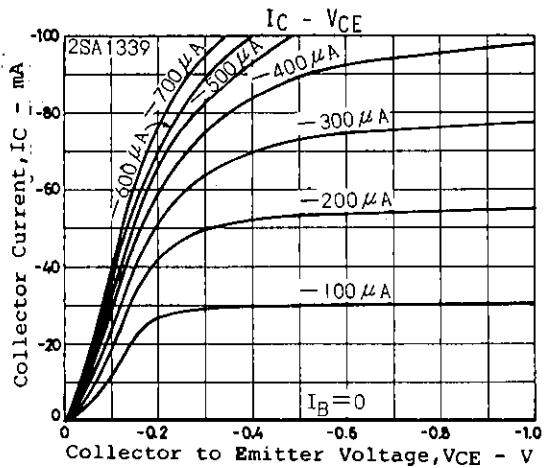


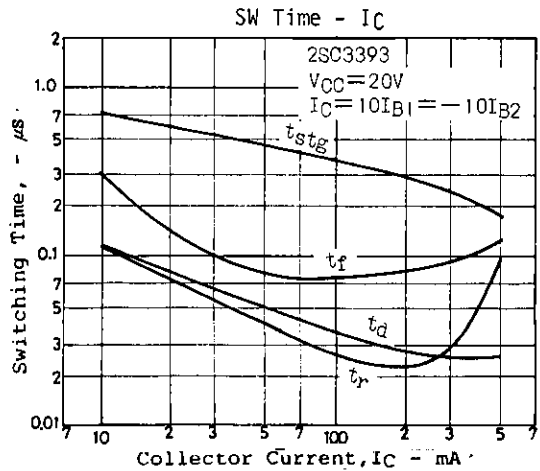
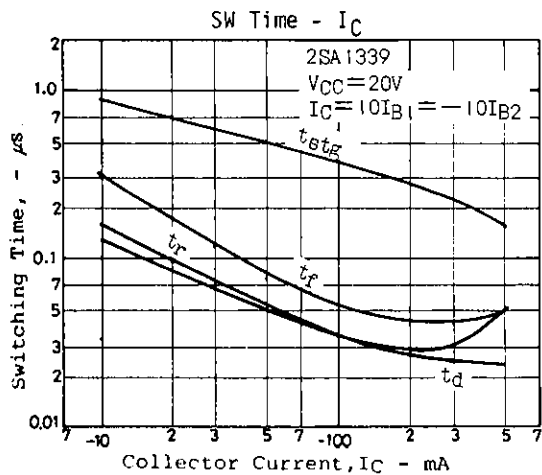
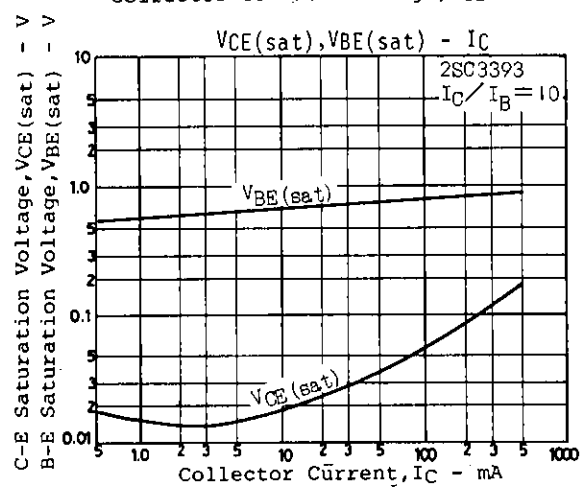
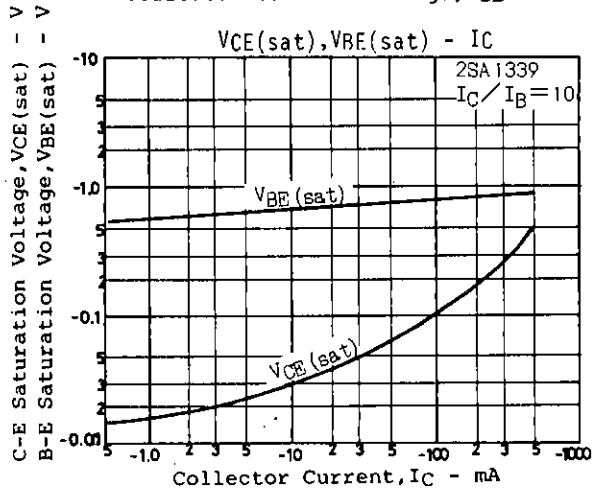
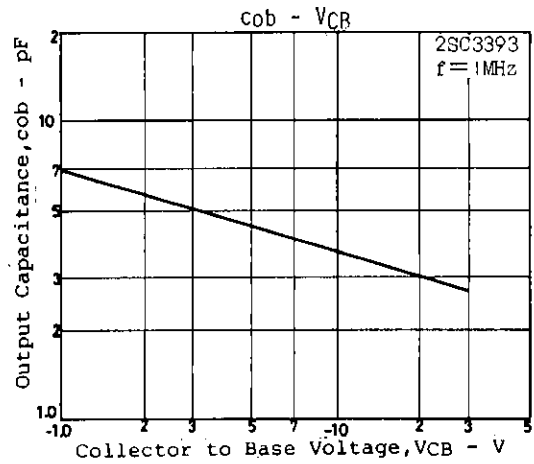
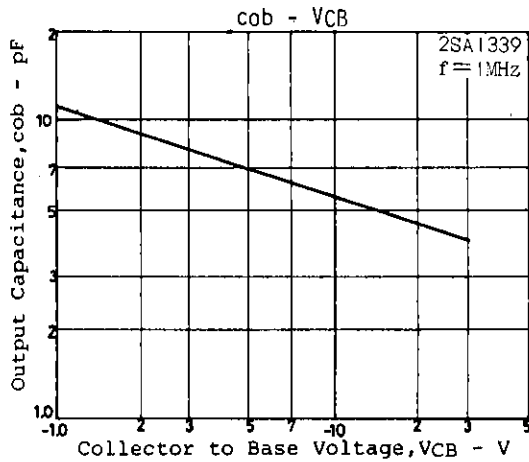
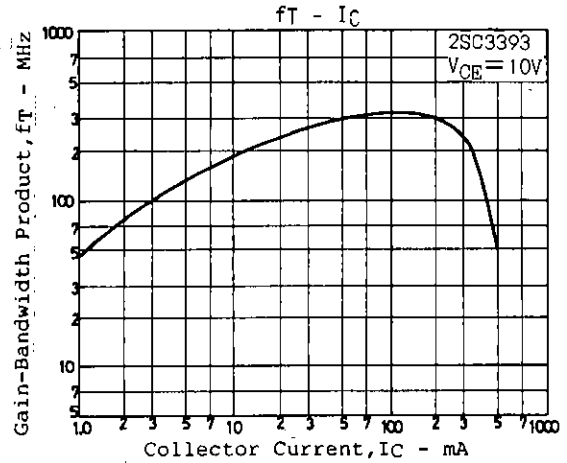
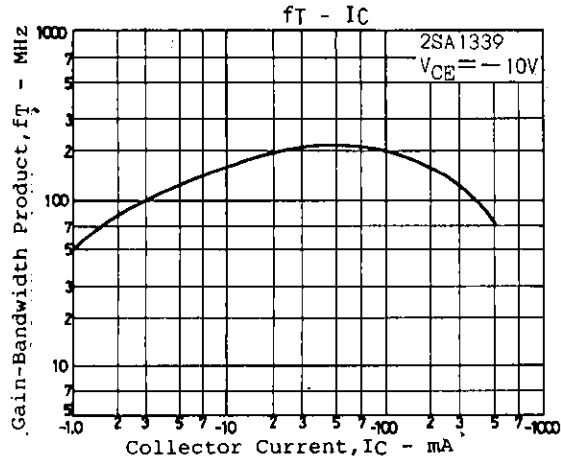
B: Base
C: Collector
E: Emitter

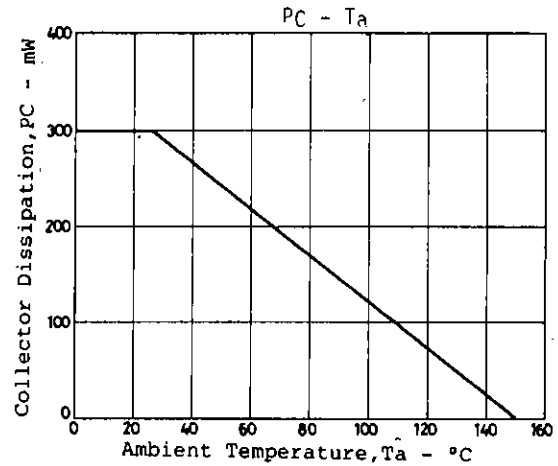
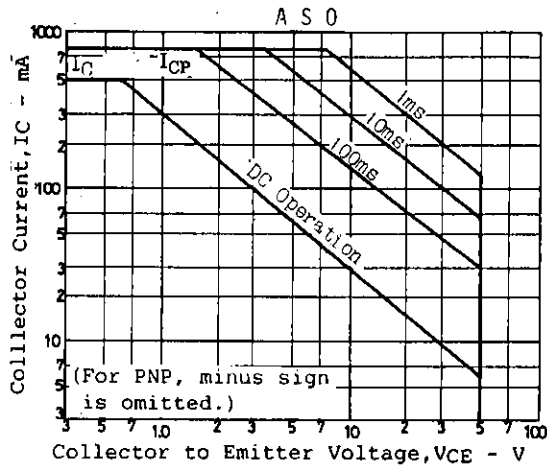
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