SILICON PNP EPITAXIAL TYPE (PCT PROCESS)
(INDUSTRIAL APPLICATIONS)

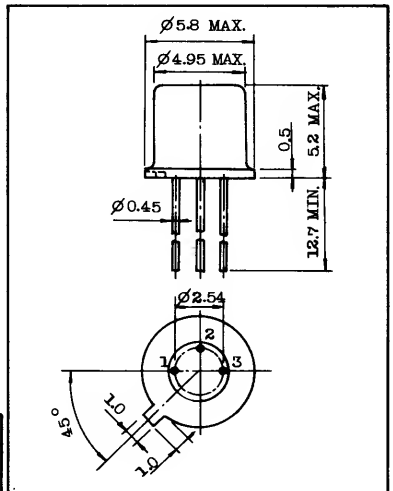
2SC400

HIGH FREQUENCY AMPLIFIER APPLICATIONS.
HIGH SPEED SWITCHING APPLICATIONS.

FEATURES:

- High Transition Frequency : f_T=300MHz (Typ.)
- Low Collector Output Capacitance : C_{ob}=4pF (Typ.)
- Low Saturation Voltage
  : $V_{CE(sat)}$=0.15V (Typ.) at I_C=10mA, I_B=1mA
- High Switching Speed : t_{stg}=300ns (Typ.)
- Complementary to 2SA500.

Unit in mm



1. EMITTER
2. BASE
3. COLLECTOR (CASE)

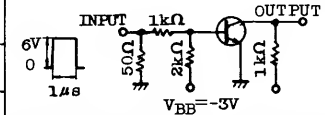
JEDEC	TO-18
EIAJ	TC-7, TB-8C
TOSHIBA	2-5A1B

Weight : 0.31g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Base Current	I_B	20	mA
Collect Power Dissipation	P_C	250	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	-65∿175	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=15V, I_E=0	-	-	0.5	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=5V, I_C=0	-	-	1.0	μA
DC Current Gain		h_{FE} (Note)	V_{CE}=1V, I_C=10mA	60	-	350	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	I_C=10mA, I_B=1mA	-	0.15	0.4	V
	Base-Emitter	$V_{BE(sat)}$		-	0.8	0.95	
Transition Frequency		fT	V_{CE}=10V, I_C=10mA	100	300	-	MHz
Collector Output Capacitance		Cob	V_{CB}=10V, I_E=0, f=1MHz	-	4	6	pF
Base Intrinsic Resistance		rbb'	V_{CB}=6V, I_E=-1mA, f=30MHz	-	40	150	Ω
Input Impedance		hie	V_{CE}=10V, I_E=-10mA f=270Hz	-	0.3	-	kΩ
Voltage Feedback Ratio		hre		-	2	-	X10^{-4}
Small-Signal Current Gain		hfe		-	80	-	
Collector Output Admittance		hoe		-	150	-	μ℧
Switching Time	Turn-on Time	ton		-	25	-	ns
	Storage Time	tstg		-	300	-	ns
	Fall Time	tf		-	30	-	ns

Note : h_{FE} Classification O : 60 ∿ 120, Y : 100 ∿ 200, GR : 170 ∿ 350