

2SA510

2SA512

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07224 DT-37-15

INDUSTRIAL APPLICATIONS

Unit in mm

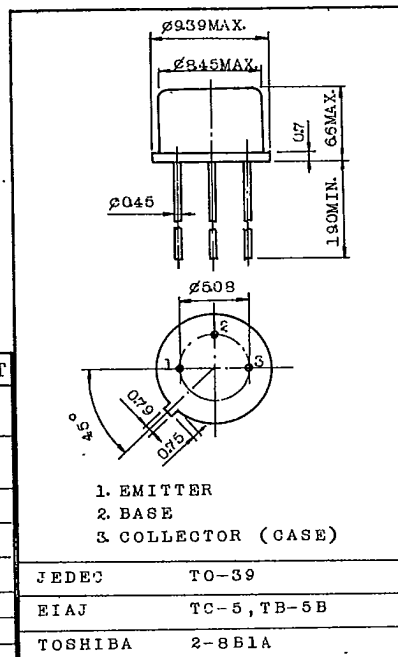
HIGH FREQUENCY AMPLIFIER APPLICATIONS.
HIGH VOLTAGE SWITCHING APPLICATIONS.
REGULATOR APPLICATIONS.

FEATURES:

- High Breakdown Voltage : $V_{CE0} = -100V$ (2SA510)
: $V_{CE0} = -60V$ (2SA512)
- Various Uses for Medium Power
: $I_C = -1.5A$ (Max.), $P_C = 800mW$ (Max.)
- Complementary to 2SC510 and 2SC512.

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	2SA510	V_{CB0}	-120	V
	2SA512		-80	
Collector-Emitter Voltage	2SA510	V_{CE0}	-100	V
	2SA512		-60	
Emitter-Base Voltage		V_{EB0}	-5	V
Collector Current		I_C	-1.5	A
Base Current		I_B	-300	mA
Collector Power Dissipation	Ta=25°C	P_C	800	mW
	Tc=25°C		8	
Junction Temperature		T_j	175	°C
Storage Temperature Range		T_{stg}	-65~175	°C



Weight : 1.13g

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -30V, I_E = 0$	-	-	-1.0	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-5.0	μA
DC Current Gain	$h_{FE}(1)$ (Note)		$V_{CE} = -2V, I_C = -200mA$	30	-	150	
	$h_{FE}(2)$		$V_{CE} = -5V, I_C = -1A$	15	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = -200mA, I_B = -20mA$	-	-0.3	-0.6	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = -200mA, I_B = -20mA$	-	-0.85	-1.0	V
Transition Frequency		f_T	$V_{CE} = -10V, I_C = -30mA$	20	60	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	43	50	pF
Switching Time	Turn-on Time	t_{on}		-	0.12	-	μs
	Storage Time	t_{stg}		-	2.0	-	
	Fall Time	t_f		-	0.2	-	

Note : $h_{FE}(1)$ Classification R : 30~90, 0 : 50~150

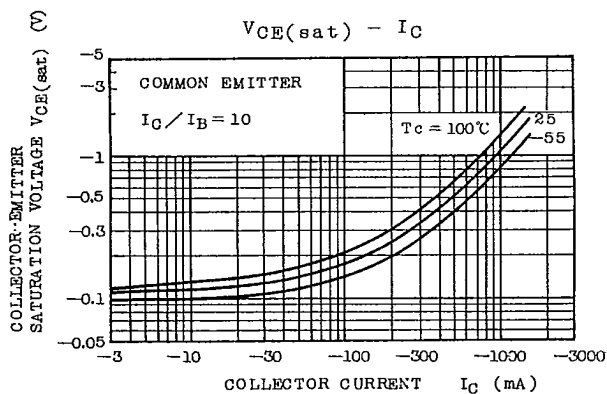
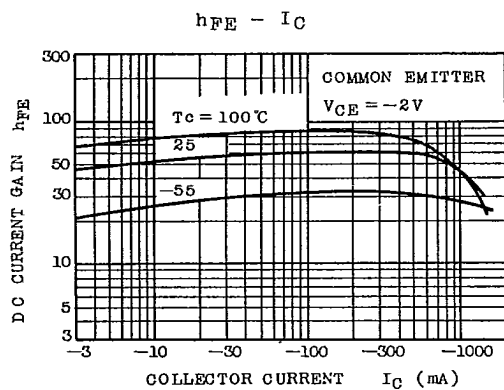
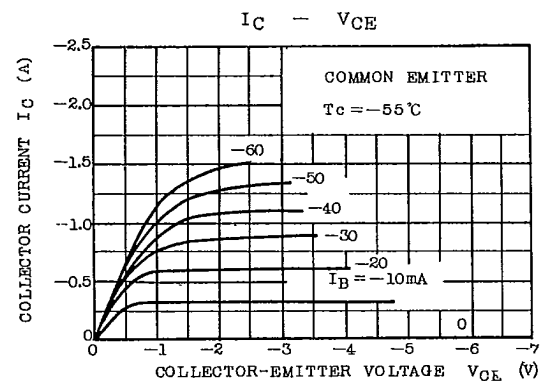
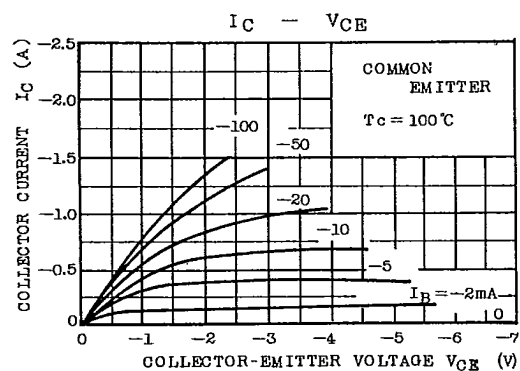
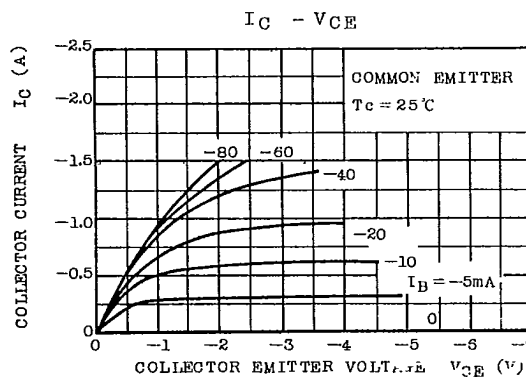
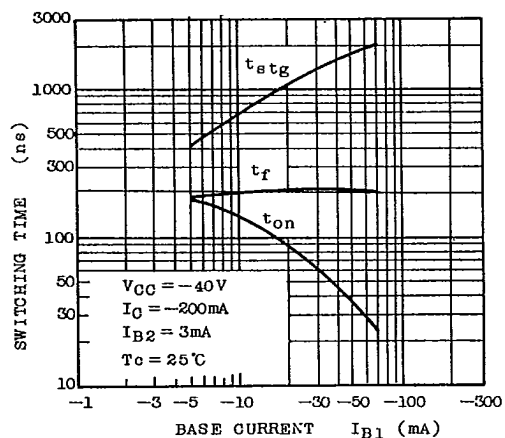
TOSHIBA CORPORATION

9097250 TOSHIBA (DISCRETE/OPTO)

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2SA510•2SA512

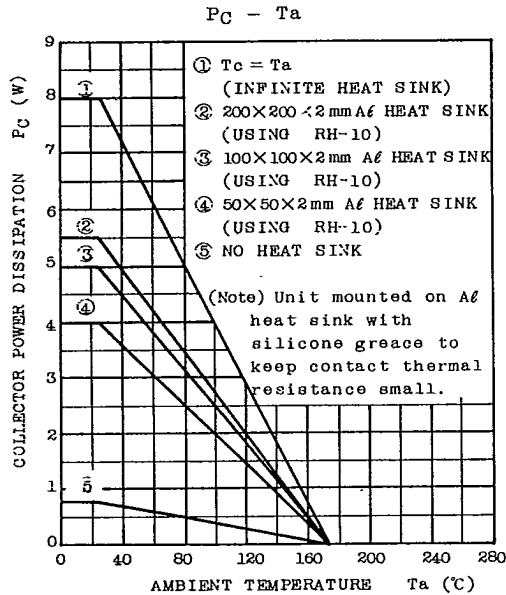
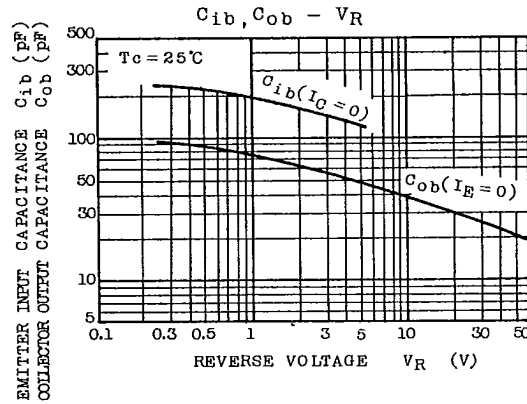
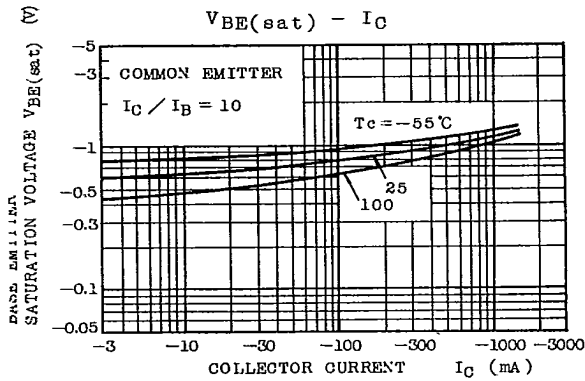
SWITCHING CHARACTERISTICS



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