

2SA510 2SA512

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07224 DT-37-15

INDUSTRIAL APPLICATIONS

Unit in mm

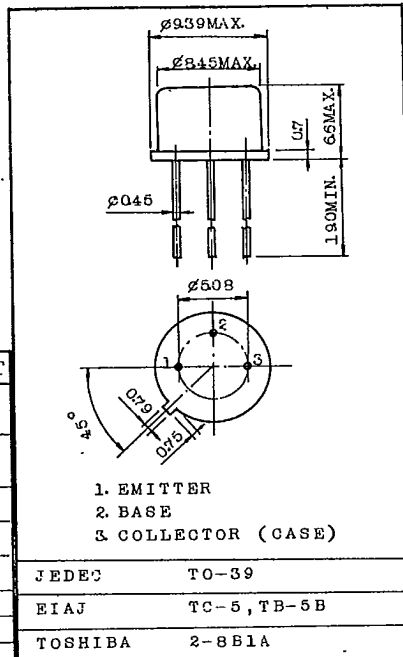
HIGH FREQUENCY AMPLIFIER APPLICATIONS.
HIGH VOLTAGE SWITCHING APPLICATIONS.
REGULATOR APPLICATIONS.

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	V_{CB0}	-120	V
		-80	
Collector-Emitter Voltage	V_{CE0}	-100	V
		-60	
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-1.5	A
Base Current	I_B	-300	mA
Collector Power Dissipation	P_C	800	mW
		8	W
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	-65~175	°C



Weight : 1.13g

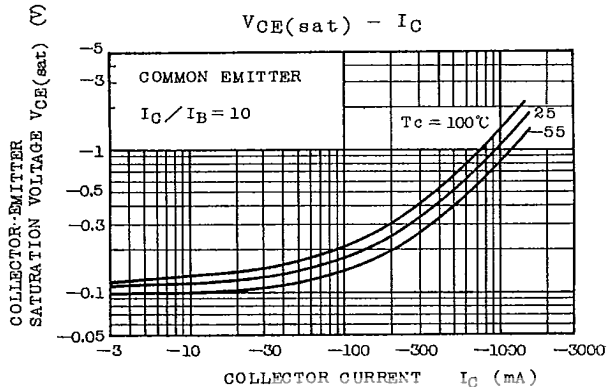
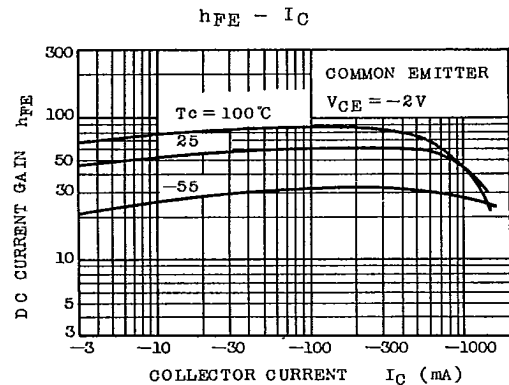
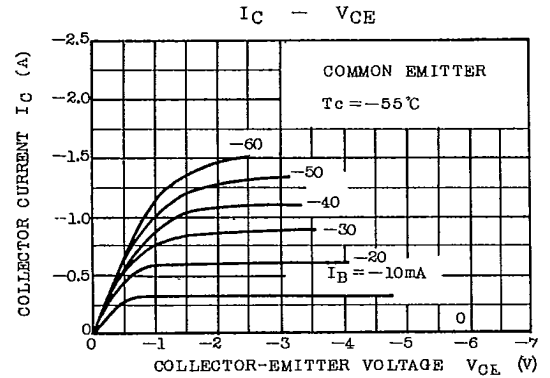
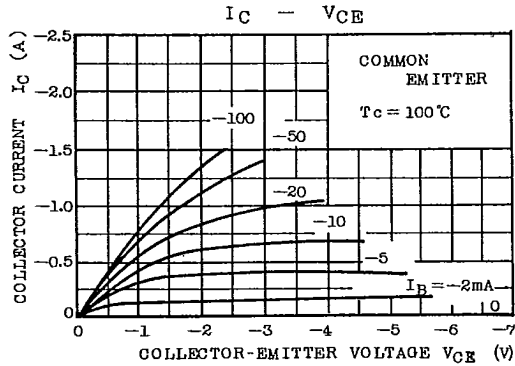
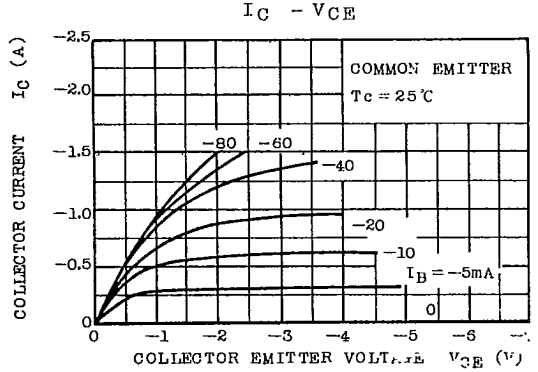
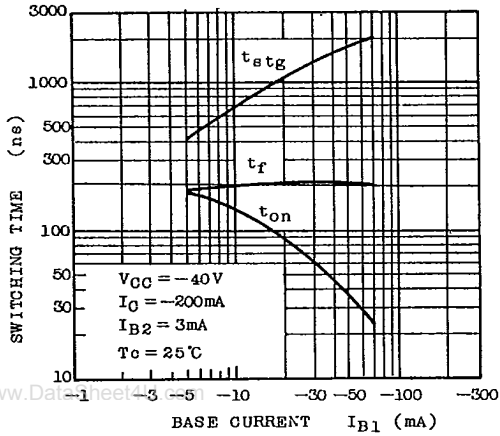
ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	<p>INPUT 1kΩ 20V 10μs DUTY CYCLE $\leq 2\%$ V$_{BB} = 3V$ V$_{CC} = -40V$</p>	-	0.12	-	μs
	Storage Time		-	2.0	-	
	Fall Time		-	0.2	-	

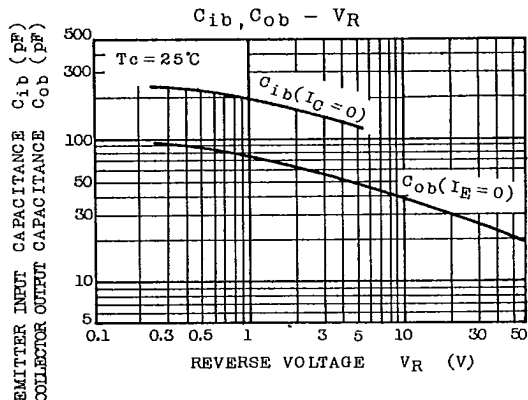
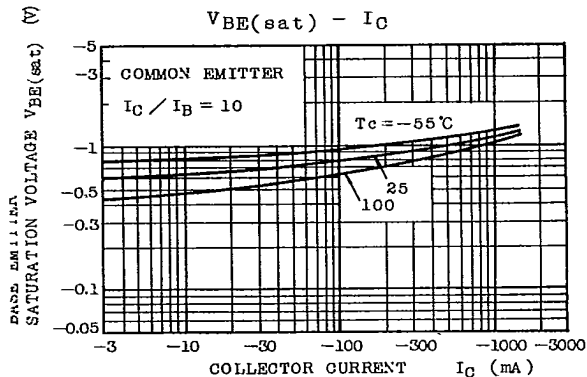
Note : $h_{FE(1)}$ Classification R : 30~90, 0 : 50~150

www.DataSheet4U.com

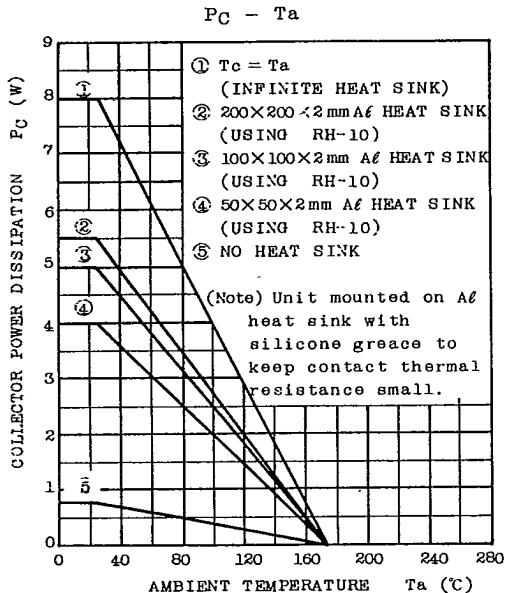
SWITCHING CHARACTERISTICS



2SA510·2SA512



www.DataSheet4U.com



www.DataSheet4U.com