

# 2SA510 2SA512

SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07224 DT-37-15  
 INDUSTRIAL APPLICATIONS  
 Unit in mm

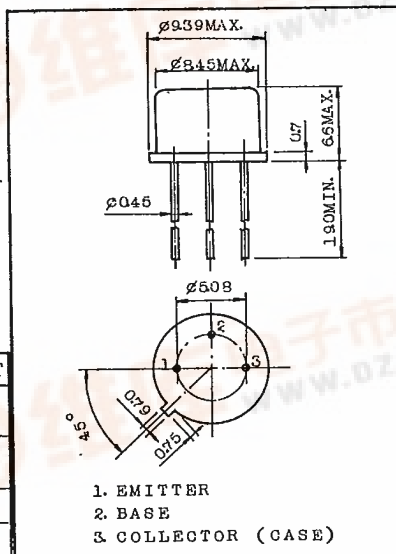
HIGH FREQUENCY AMPLIFIER APPLICATIONS.  
 HIGH VOLTAGE SWITCHING APPLICATIONS.  
 REGULATOR APPLICATIONS.

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	-120	V
	2SA512	-80	
Collector-Emitter Voltage	2SA510	-100	V
	2SA512	-60	
Emitter-Base Voltage	VEBO	-5	V
Collector Current	IC	-1.5	A
Base Current	IB	-300	mA
Collector Power Dissipation	Ta=25°C	800	mW
	Tc=25°C	8	W
Junction Temperature	Tj	175	°C
Storage Temperature Range	Tstg	-65~175	°C



JEDEC	T0-39
EIAJ	TC-5, TB-5B
TOSHIBA	2-8B1A
Weight : 1.13g	

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	ICBO	VCB=-30V, IE=0	-	-	-1.0	µA
Emitter Cut-off Current	IEBO	VEB=-5V, IC=0	-	-	-5.0	µA
DC Current Gain	hFE(1) (Note)	VCE=-2V, IC=-200mA	30	-	150	
	hFE(2)	VCE=-5V, IC=-1A	15	-	-	
Collector-Emitter Saturation Voltage	VCE(sat)	IC=-200mA, IB=-20mA	-	-0.3	-0.6	V
Base-Emitter Saturation Voltage	VBE(sat)	IC=-200mA, IB=-20mA	-	-0.85	-1.0	V
Transition Frequency	fT	VCE=-10V, IC=-30mA	20	60	-	MHz
Collector Output Capacitance	Cob	VCB=-10V, IE=0, f=1MHz	-	43	50	pF
Switching Time	Turn-on Time		-	0.12	-	µs
	Storage Time		-	2.0	-	
	Fall Time		-	0.2	-	

Note : hFE(1) Classification R : 30~90, O : 50~150

TOSHIBA CORPORATION

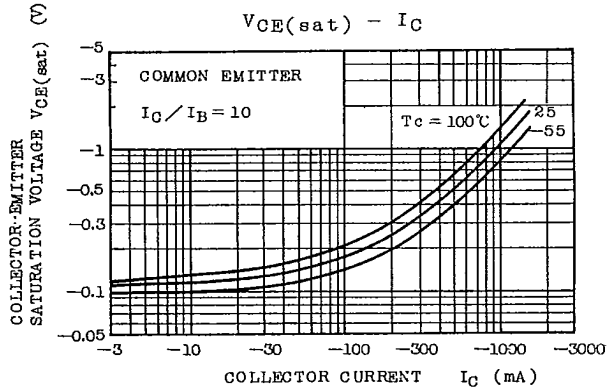
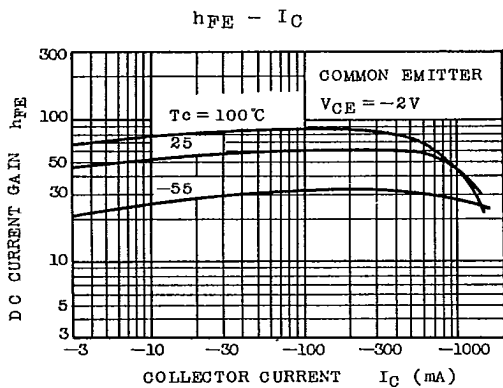
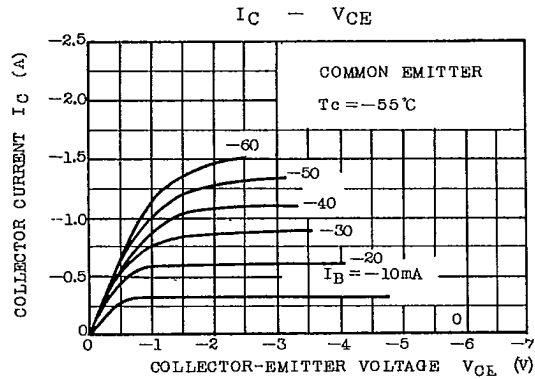
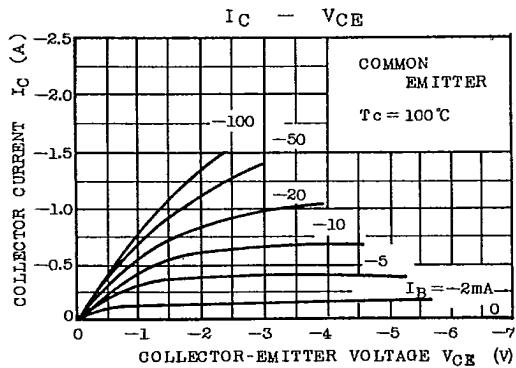
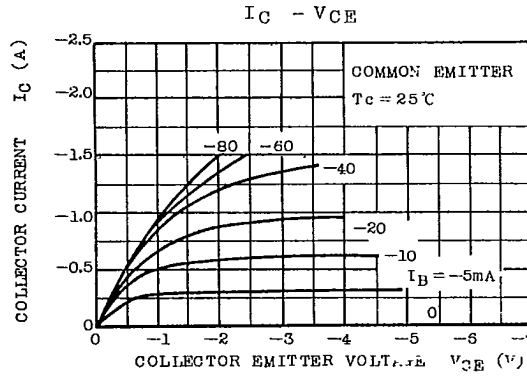
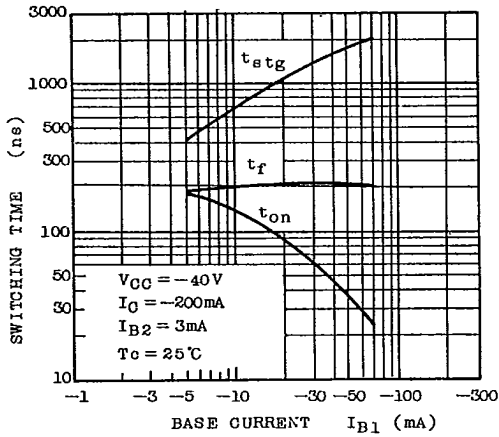


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SWITCHING CHARACTERISTICS



TOSHIBA CORPORATION

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