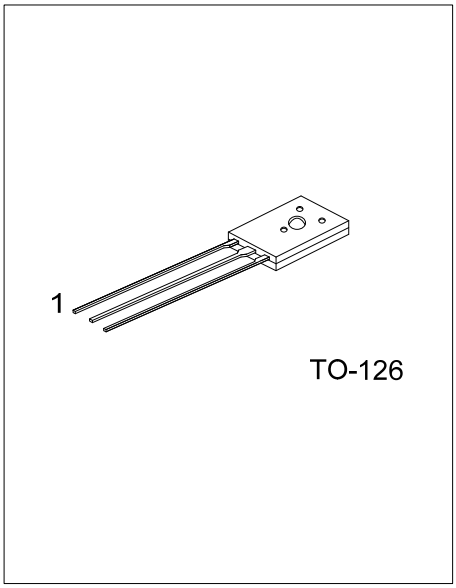
2SA1507

PNP SILICON TRANSISTOR

SWITCHING TRANSISTOR



■ APPLICAITONS

* Color TV audio output, converters, inverters

■ FEATURES

* High breakdown voltage
* Large current capacitance
* High-speed switching

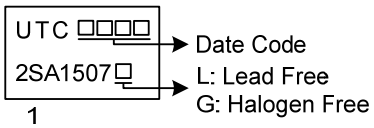
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1507L-T60-K	2SA1507G-T60-K	TO-126	E	C	B	Bulk

Note: Pin Assignment: E: Emitter C: Collector B: Base

2SA1507G-T60-K (1)Packing Type (2)Package Type (3)Green Package	(1) K: Bulk (2) T60: TO-126 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-180	V
Collector-emitter voltage	V_{CEO}	-160	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-1.5	A
Collector Current (Peak)	I_{CP}	-2.5	A
Collector Dissipation	P_C	1.5	W
Collector Dissipation (T_C=25°C)		10	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

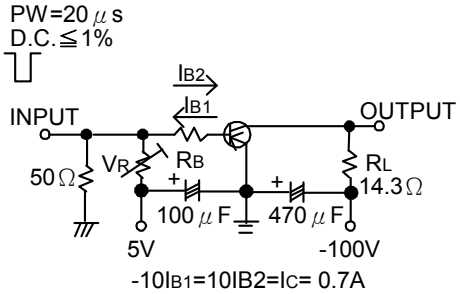
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-10μA I_E=0	-180			V
Collector-to-Base Breakdown Voltage	$V_{(BR)CEO}$	I_C= -1mA,R_{BE}=∞	-160			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)\ EBO}$	I_C=0, I_E= -10μA	-6			V
Collector Cut-Off Current	I_{CBO}	V_{CB}= -120V, IE=0			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= -4V, I_C=0			-0.1	μA
DC Current Gain	h_{FE1}	V_{CE}= -5V, I_C= -100mA	100		400	
	h_{FE2}	V_{CE}= -5V, I_C= -10mA	90			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C= -500mA, I_B= -50mA		-0.2	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C= -500mA, I_B= -50mA		-0.83	-1.2	V
Gain Bandwidth Product	f_T	V_{CE}= -10V, Ic= -50mA		120		MHz
Output Capacitance	Cob	V_{CB}= -10V, f=1MHz		22		pF
Turn-On Time	t_{on}	See specified Test Circuit		0.04		μs
Storage Time	T_{STG}	See specified Test Circuit		0.7		μs
Fall Time	t_f	See specified Test Circuit		0.04		μs

Note: Pulse test: Pulse width=300μs, Duty Cycle≦2%

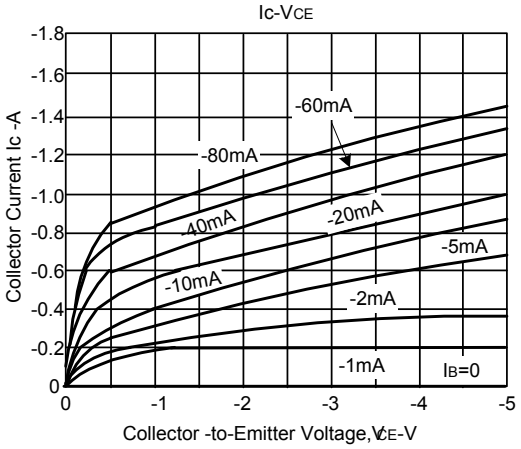
■ CLASSIFICATION OF h_{FE}

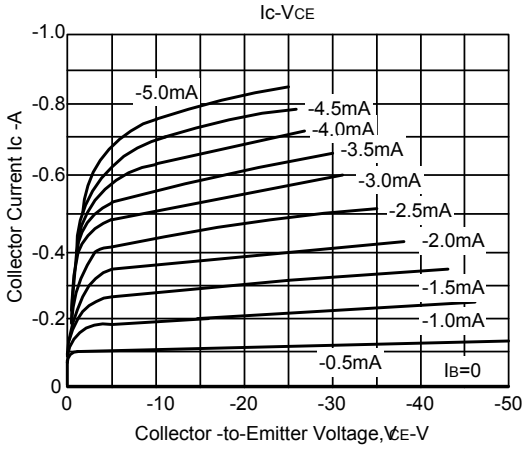
RANK	R	S	T
RANGE	100-200	140-280	200-400

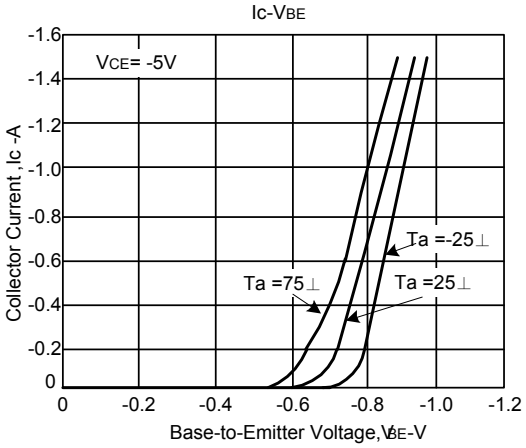
■ SWITCHING TIME TEST CIRCUIT

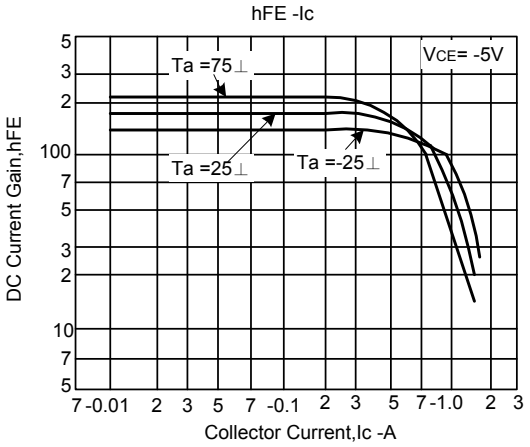


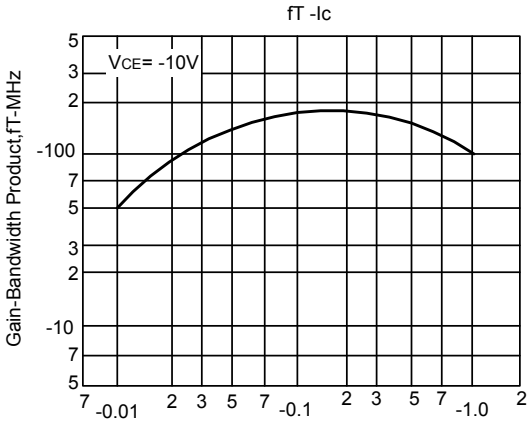
■ TYPICAL CHARACTERISTICS

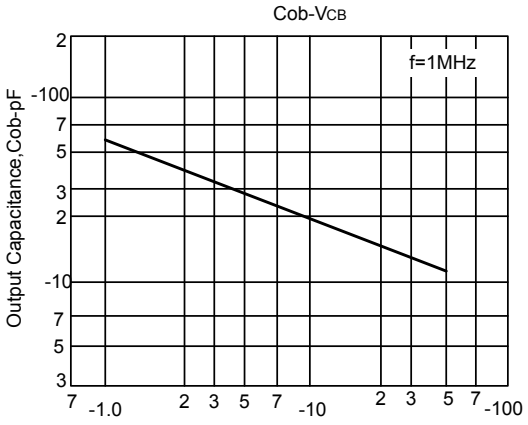








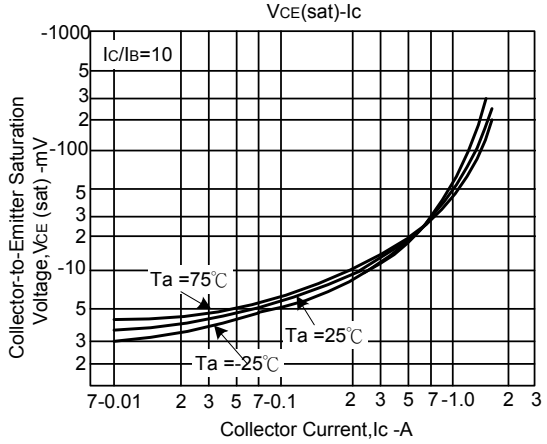




■ TYPICAL CHARACTERISTICS (Cont.)

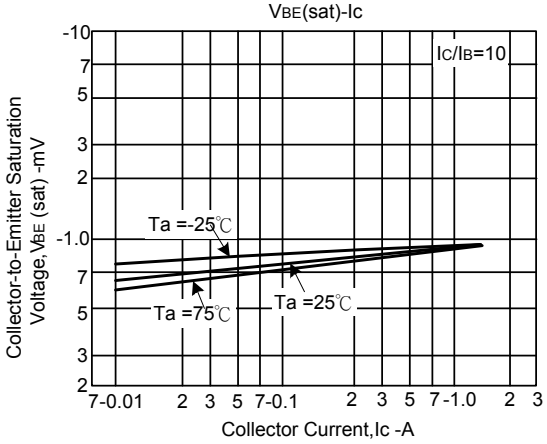
Collector Current,Ic -A

VCE(sat)-Ic



Collector-to-Base Voltage,VCB-V

VBE(sat)-Ic



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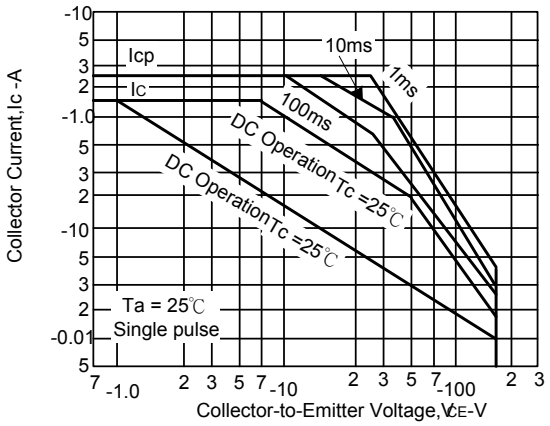
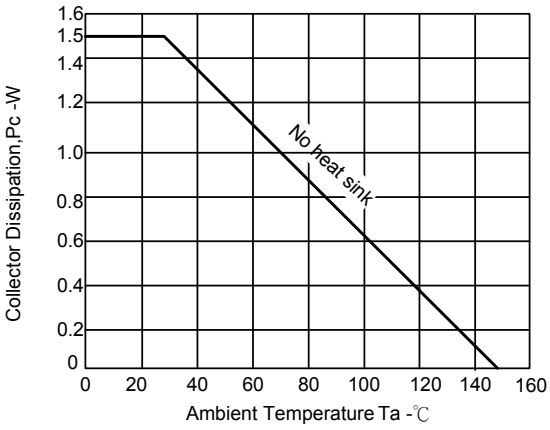


Pc -Ta



Pc -Tc