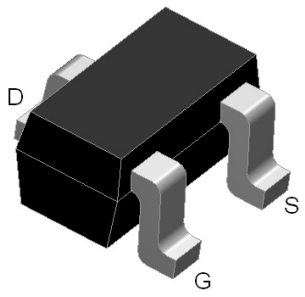
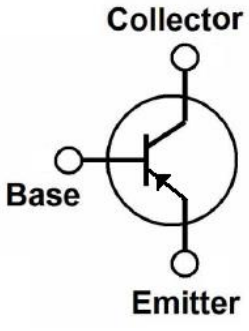
GENERAL PURPOSE TRANSISTORS PNP Silicon





FEATURES

- Reduces Board Space
- High h_{FE} = 120~560
- Low $V_{CE(sat)}$ < 0.5V

MECHANICAL DATA

- Available in SOT-523 Package
- Solderability：MIL-STD-202, Method 208
- Full RoHS Compliance

ORDERING INFORMATION

PART NUMBER	PACKAGE	SHIPPING	MARKING CODE
2SA1774□-△-5T3R	SOT-523	Tape Reel	A1774 LS yww

Notes:

1. □: none is for Lead Free package;
   "G" is for Halogen Free package.
2. △: Rank Of h_{FE}; See Classification Of h_{FE}
3. Marking Code: yww: y: Year code; ww: Week code.

THERMAL DATA

PARAMETER	SYMBOL	VALUES	UNIT
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	833	°C/W

Notes:

4. $R_{\theta JA}$ is the sum of the junction-to-case and case-to-ambient thermal resistance where the case thermal reference is defined as the solder mounting surface of the drain pins. $R_{\theta JC}$ is guaranteed by design while $R_{\theta CA}$ is determined by the user's board design. The value of $R_{\theta JA}$ is measured with device mounted on 1 in^2 FR-4 board with 2 oz copper.

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted.

PARAMETER	SYMBOL	VALUES	UNIT
Collector-Emitter Voltage	V_{CEO}	-50	V
Collector-Base Voltage	V_{CBO}	-60	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current-Continuous	I_C	-150	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-50			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -50 μA, I_E = 0	-60			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -50 μA, I_C = 0	-6			V
Emitter Cut-off Current	I_{EBO}	V_{EB} = -6V, I_C = 0			-0.1	μA
Collector Cut-off Current	I_{CBO}	V_{CB} = -60V, I_E = 0			-0.1	μA
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	I_C = -1mA, V_{CE} = -6V	120		560	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -50mA, I_B = -5mA			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -50mA, I_B = -5mA			-1.2	V
SMALL-SIGNAL CHARACTERISTICS						
Transition Frequency	f_T	I_C= -2mA, V_{CE}= -12V, f = 30MHz		140		MHz
Collector Output Capacitance	C_{ob}	V_{CB} = -12V, I_E = 0, f = 1MHz		3.5	5	pF

TYPICAL PERFORMANCE CHARACTERISTICS

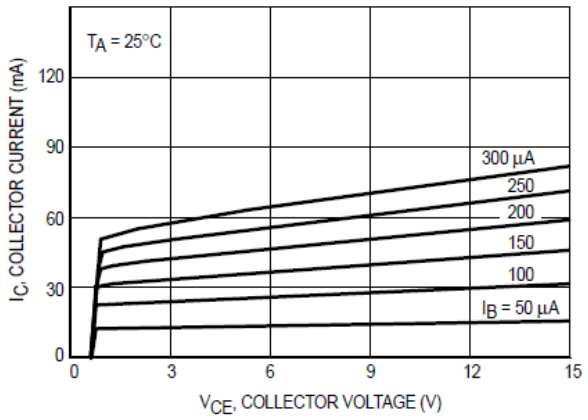


Figure 1. I_C – V_{CE}

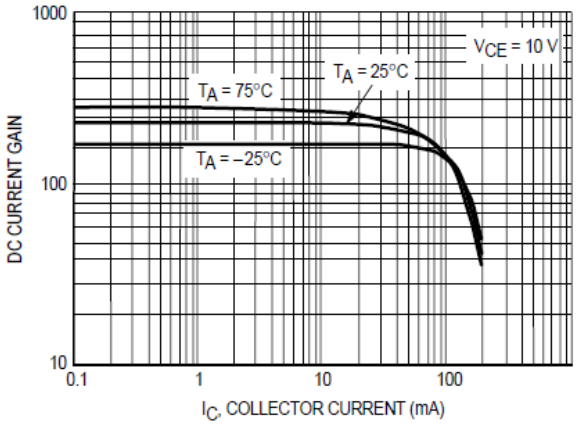


Figure 2. DC Current Gain

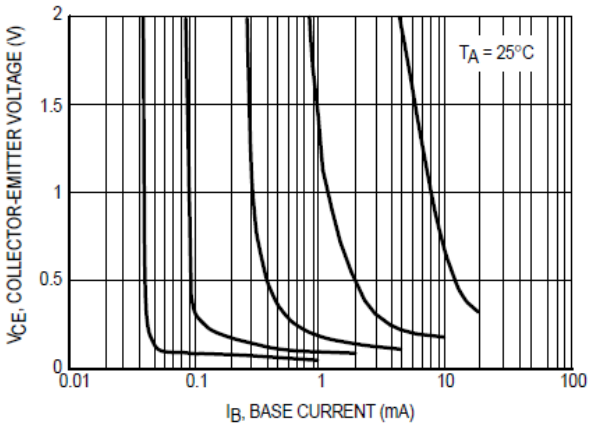


Figure 3. Collector Saturation Region

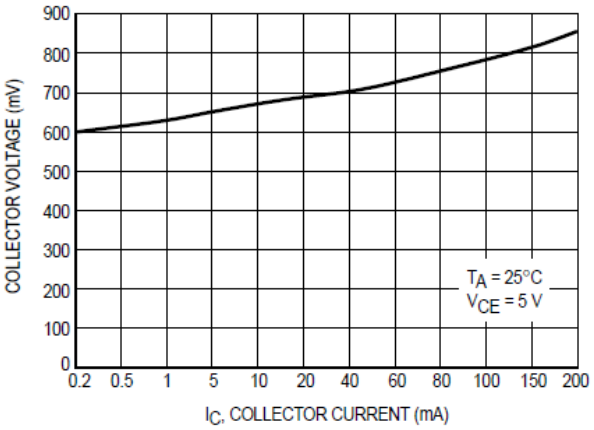


Figure 4. On Voltage

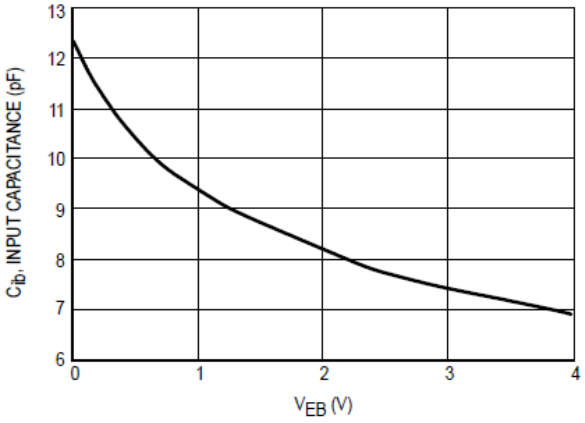


Figure 5. Capacitance

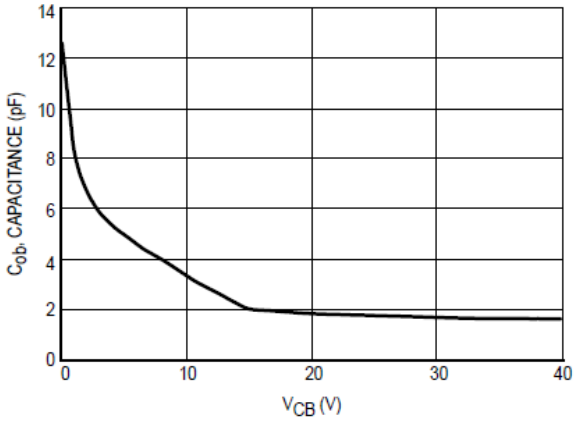


Figure 6. Capacitance

PHYSICAL DIMENSION

Unit：Inch(Millimiter)

SOT-523