



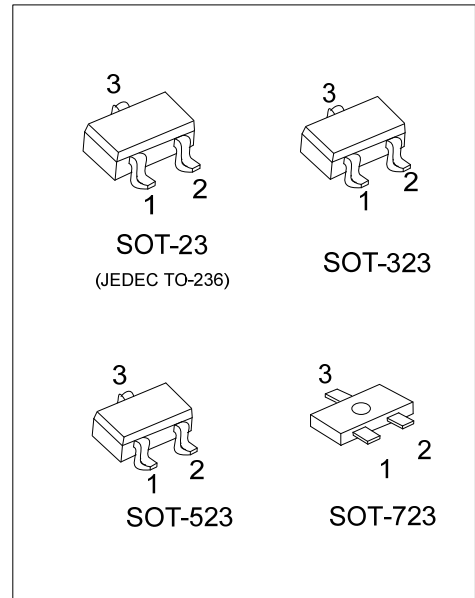
## 2SA1774

## PNP EPITAXIAL SILICON TRANSISTOR

### GENERAL PURPOSE TRANSISTOR

#### FEATURES

- \* Excellent  $h_{FE}$  linearity
- \* Complements the UTC **2SC4617**



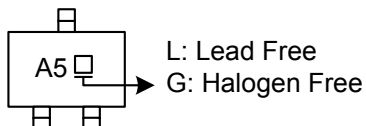
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1774L-x-AE3-R	2SA1774G-x-AE3-R	SOT-23	B	E	C	Tape Reel
2SA1774L-x-AL3-R	2SA1774G-x-AL3-R	SOT-323	B	E	C	Tape Reel
2SA1774L-x-AN3-R	2SA1774G-x-AN3-R	SOT-523	B	E	C	Tape Reel
2SA1774L-x-AQ3-R	2SA1774G-x-AQ3-R	SOT-723	B	E	C	Tape Reel

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

<p>2SA1774G-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (3) Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, AQ3: SOT-723 (3) x: refer to Classification of <math>h_{FE}</math> (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATING ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-60	V
Collector-Emitter Voltage		$V_{CEO}$	-50	V
Emitter-Base Voltage		$V_{EBO}$	-6	V
Collector Current		$I_C$	-0.15	A
Collector Power Dissipation	SOT-23	$P_C$	0.22	W
	SOT-323		0.16	
	SOT-523		0.15	
	SOT-723		0.125	
Junction Temperature		$T_J$	+150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 ~ +150	$^\circ\text{C}$

Notes: 1. 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.

2. The device is guaranteed to meet performance specification within  $0^\circ\text{C}$  ~  $70^\circ\text{C}$  operating temperature range and assured by design from  $-20^\circ\text{C}$  ~  $85^\circ\text{C}$ .

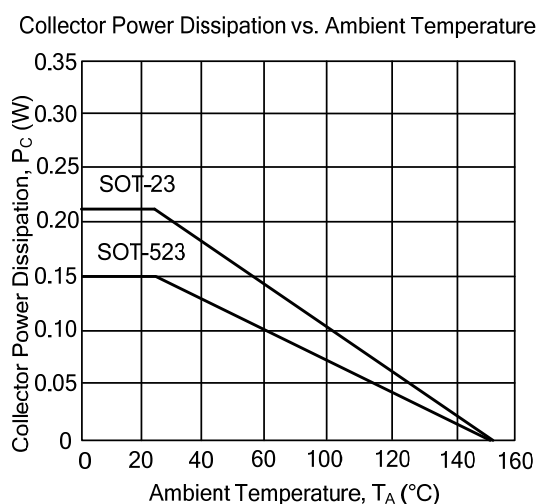
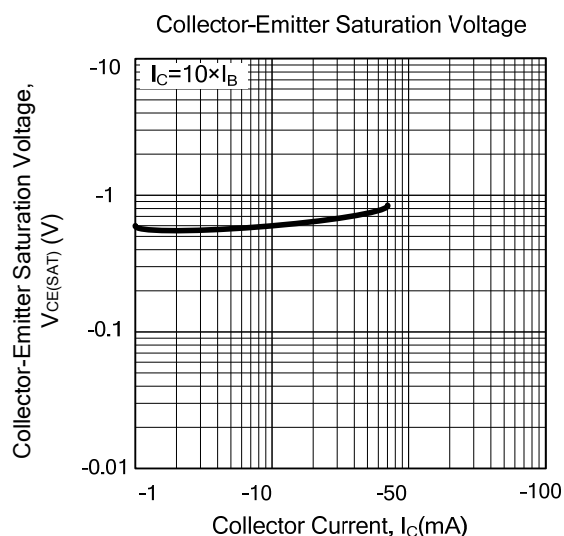
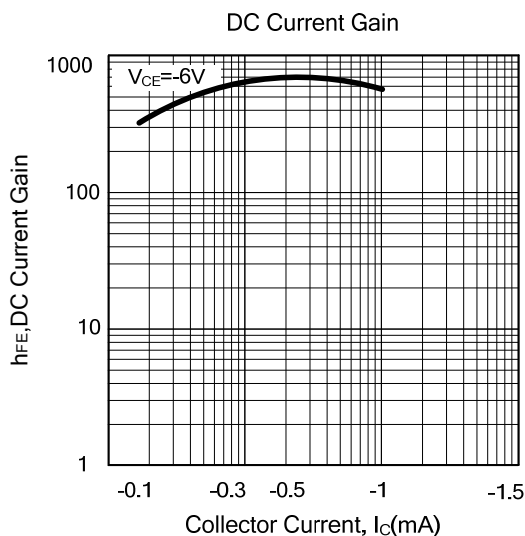
■ ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ , unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = -50\mu\text{A}$	-60			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = -1\text{mA}$	-50			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = -50\mu\text{A}$	-6			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = -60\text{V}$			-0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -6\text{V}$			-0.1	$\mu\text{A}$
DC Current Transfer Ratio	$h_{FE}$	$V_{CE} = -6\text{V}$ , $I_C = -1\text{mA}$	120		560	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -50\text{mA}$ , $I_B = -5\text{mA}$			-0.5	V
Transition Frequency	$f_T$	$V_{CE} = -12\text{V}$ , $I_E = 2\text{mA}$ , $f = 100\text{MHz}$		140		MHz
Output Capacitance	$C_{OB}$	$V_{CB} = -12\text{V}$ , $I_E = 0\text{A}$ , $f = 1\text{MHz}$		4.0	5.0	pF

■ CLASSIFICATION OF  $h_{FE1}$

RANK	Q	R	S
Range	120 ~ 270	180 ~ 390	270 ~ 560

# ■ TYPICAL CHARACTERISTICS



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