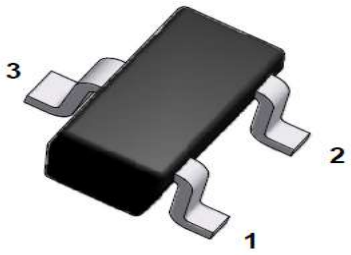
2SA1774

2SA1774Q / 2SA1774R / 2SA1774S
SOT-523 Silicon General Purpose Transistor (PNP)

General description
SOT-523 Silicon General Purpose Transistor (PNP)

Green Product



SOT-523

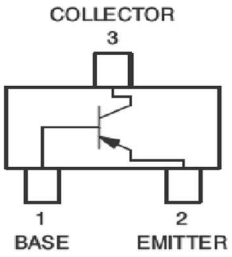
FEATURES
- Low Cob = 3.5pF (Typical)
- Low Vce(sat) < 0.5V
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.002g

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_C	Collector Power Dissipation	150	mW
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperature	+150	°C
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current - Continuous	-100	mA

These ratings are limiting values above which the serviceability of the diode may be impaired.

Electrical Symbol:



. **Electrical Characteristics** (Ratings at 25℃ ambient temperature unless otherwise specified).

Symbol	Parameter		Test Condition	Limits			Unit
				Min	Typ	Max	
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage		I_C=-50uA, I_E=0A	-50			Volts
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage		I_C=-1mA, I_B=0A	-50			Volts
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage		I_E=-50uA, I_C=0A	-5			Volts
I_{CBO}	Collector Cut-off Current		V_{CB}=-50V, I_E=0A			-0.1	μA
I_{EBO}	Emitter Cut-off Current		V_{EB}=-5V, I_C=0A			-0.1	μA
h_{FE}	DC Current Gain	2SA1774Q	V_{CE}=-6V, I_C=-1mA	120		270	---
		2SA1774R	V_{CE}=-6V, I_C=-1mA	180		390	---
		2SA1774S	V_{CE}=-6V, I_C=-1mA	270		560	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		I_C=-50mA, I_B=-5mA			-0.5	Volts
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		I_C=-50mA, I_B=-5mA			-1.2	Volts

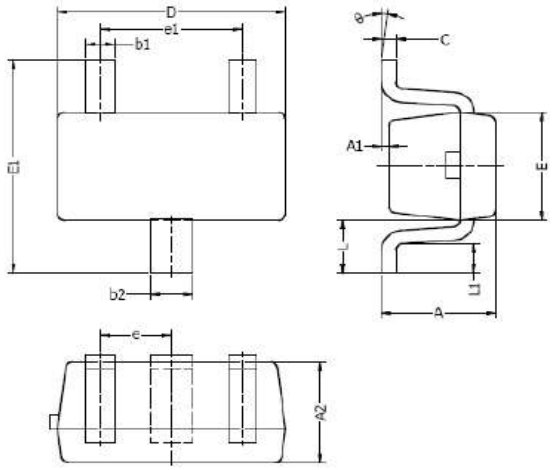
2SA1774

Symbol	Parameter	Test Condition	Limits			Unit
			Min	Typ	Max	
f_T	Transition Frequency	V_{CE} =-5V, I_C=-10mA f=30MHz		230		MHz
C_{OB}	Collector Output Capacitance	V_{CB} =-12V, I_E =0A, f=1MHz		3.5		pF

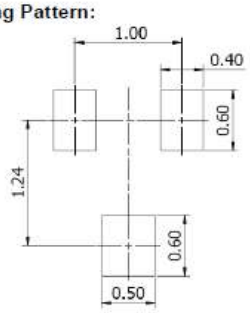
Classification of hFE & Marking Code:

Rank	2SA1774Q	2SA1774R	2SA1774S
h_{FE} Range Classification of h_{FE}	120 - 270	180 - 390	270 - 560
Marking	FQ	FR	FS

SOT-523 PACKAGE OUTLINE



Typical Soldering Pattern:



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
A1	0.00	0.10	0.000	0.004
A2	0.70	0.80	0.028	0.031
b1	0.15	0.25	0.006	0.010
b2	0.25	0.35	0.010	0.014
c	0.10	0.20	0.004	0.008
D	1.50	1.70	0.059	0.067
E	0.70	0.90	0.028	0.035
E1	1.45	1.75	0.057	0.069
e	0.50 TYP.		0.020 TYP.	
e1	0.90	1.10	0.035	0.043
L	0.40 REF.		0.016 REF.	
L1	0.10	0.30	0.004	0.012
θ	0°	8°	0°	8°

NOTES:
1. Above package outline conforms to JEITA EAIJ ED-7500A SC-75A.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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