

# 2SC4617 SOT-523 Silicon General Purpose Transistor (NPN)

# **General description**

SOT-523 Silicon General Purpose Transistor (NPN)

#### **FEATURES**

- Low Cob = 2.0pF (Typical)
- Low Vce(sat) < 0.4V</li>
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.002g

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## Absolute Maximum Ratings TA = 25°C unless otherwise (noted 2)

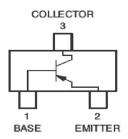
Symbol	Parameter	Value	Units
Pc	Collector Power Dissipation	150	mW
Тѕтс	Storage Temperature Range	-55 to +150	°C
TJ	Operating Junction Temperature	+150	°C
Vсво	Collector-Base Voltage	50	V
Vceo	Collector-Emitter Voltage	50	V
VEBO	Emitter-Base Voltage	5	V
Ic	Collector Current - Continuous	100	mA
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### **Green Product**



SOT-523

#### **Electrical Symbol:**



. **Electrical Characteristics** (Ratings at  $25^{\circ}$ C ambient temperature unless otherwise specified).

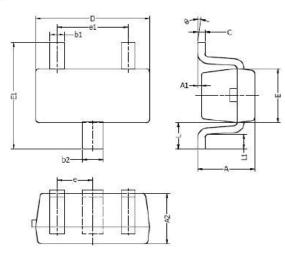
Symbol	Parameter	Test Condition	Limits		Unit	
	rarameter	Min Typ	Max	Oilit		
V <sub>(BR)</sub> CBO	Collector-Base Breakdown Voltage	I <sub>C</sub> =50uA, I <sub>E</sub> =0A	50			Volts
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =1mA, I <sub>B</sub> =0A	50			Volts
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =50uA, I <sub>C</sub> =0A	5			Volts
Ісво	Collector Cut-off Current	V <sub>CB</sub> =50V, I <sub>E</sub> =0A			0.1	μA
ІЕВО	Emitter Cut-off Current	V <sub>EB</sub> =5V, I <sub>C</sub> =0A			0.1	μA
hfE	DC Current Gain	V <sub>CE</sub> =6V, I <sub>C</sub> =1mA	120		560	
VCE(sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA			0.4	Volts
f⊤	Transition Frequency	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA f=30MHz		280		MHz
Сов	Collector Output Capacitance	V <sub>CB</sub> =12V, I <sub>E</sub> =0A, f=1MHz		2.0		pF



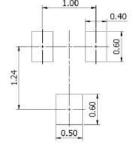
# Classification of hFE & Marking Code:

Rank	Q	R	s
Range	120 - 270	180 - 390	270 - 560
Marking	BQ	BR	BS

#### **SOT-523 PACKAGE OUTLINE**



Typical Soldering Pattern:
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DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
Α	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
С	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
е	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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