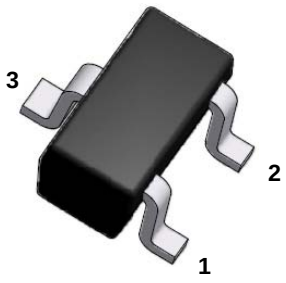
TAK CHEONG®

SEMICONDUCTOR

2SC4617

150mW SOT-523 SURFACE MOUNT
Plastic Package
NPN Silicon General Purpose Transistor

Green Product



SOT-523

Absolute Maximum Ratings T_A = 25°C unless otherwise noted

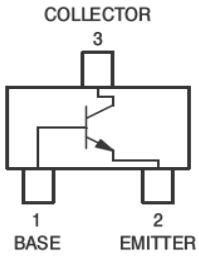
Symbol	Parameter	Value	Units
P_C	Collector Power Dissipation	150	mW
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperature	+150	°C
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current - Continuous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

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

pecification Features:

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

Electrical Symbol:



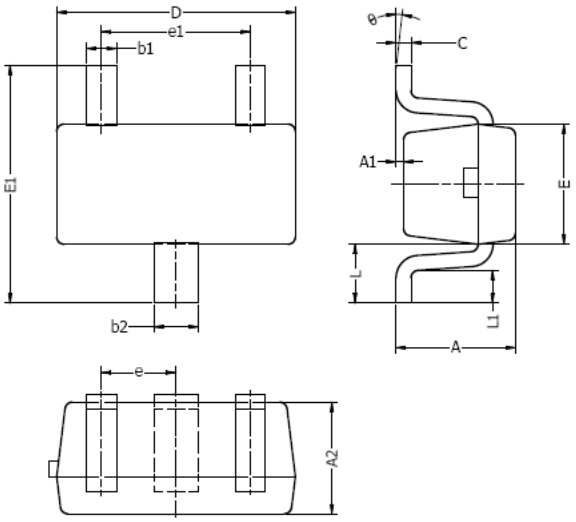
Electrical Characteristics T_A = 25°C unless otherwise noted

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	V_{CE}=6V, I_C=1mA	120		560	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=50mA, I_B=5mA			0.4	Volts
f_T	Transition Frequency	V_{CE} =5V, I_C=10mA f=30MHz		280		MHz
C_{OB}	Collector Output Capacitance	V_{CB} =12V, I_E =0A, f=1MHz		2.0		pF

Classification of h_{FE}

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

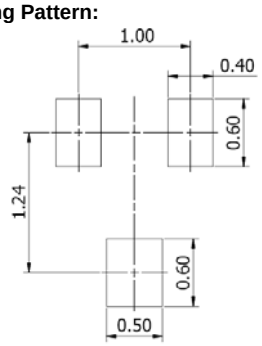
SOT-523 Package Outline



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	0^0	8^0	0^0	8^0

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

Typical Soldering Pattern:



NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damagers resulting from such improper use of sale.

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