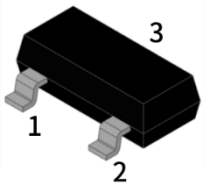
S9014ALST1

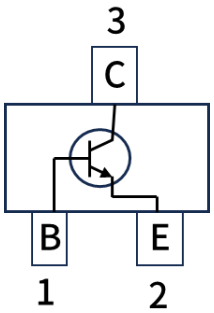
General Purpose Transistors NPN

1. FEATURES

- The material of product compliance with RoHS requirements and Halogen Free.
- High Stability and High Reliability.



SOT23 (TO-236)



2. Mechanical Data

- SOT-23 Small Outline Plastic Package.
- Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Marking: J6

3. ORDERING INFORMATION

Device	Min Pack	Inner Box	Outer Carton	Reel
S9014ALST1	3000	45000	180000	7 inch

4. MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Limit	Unit
Collector-Emitter Voltage	VCEO	45	V
Collector-Base Voltage	VCBO	50	V
Emitter-Base Voltage	VEBO	5	V
Collector Current--Continuous	Ic	100	mA
Collector Power Dissipation	Pc	200	mW

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limit	Unit
Operation Junction and Storage Temperature Range	TJ,TSTG	-55~150	°C
Thermal Resistance From Junction to Ambient	RΘJA	625	°C/W

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C unless otherwise specified)

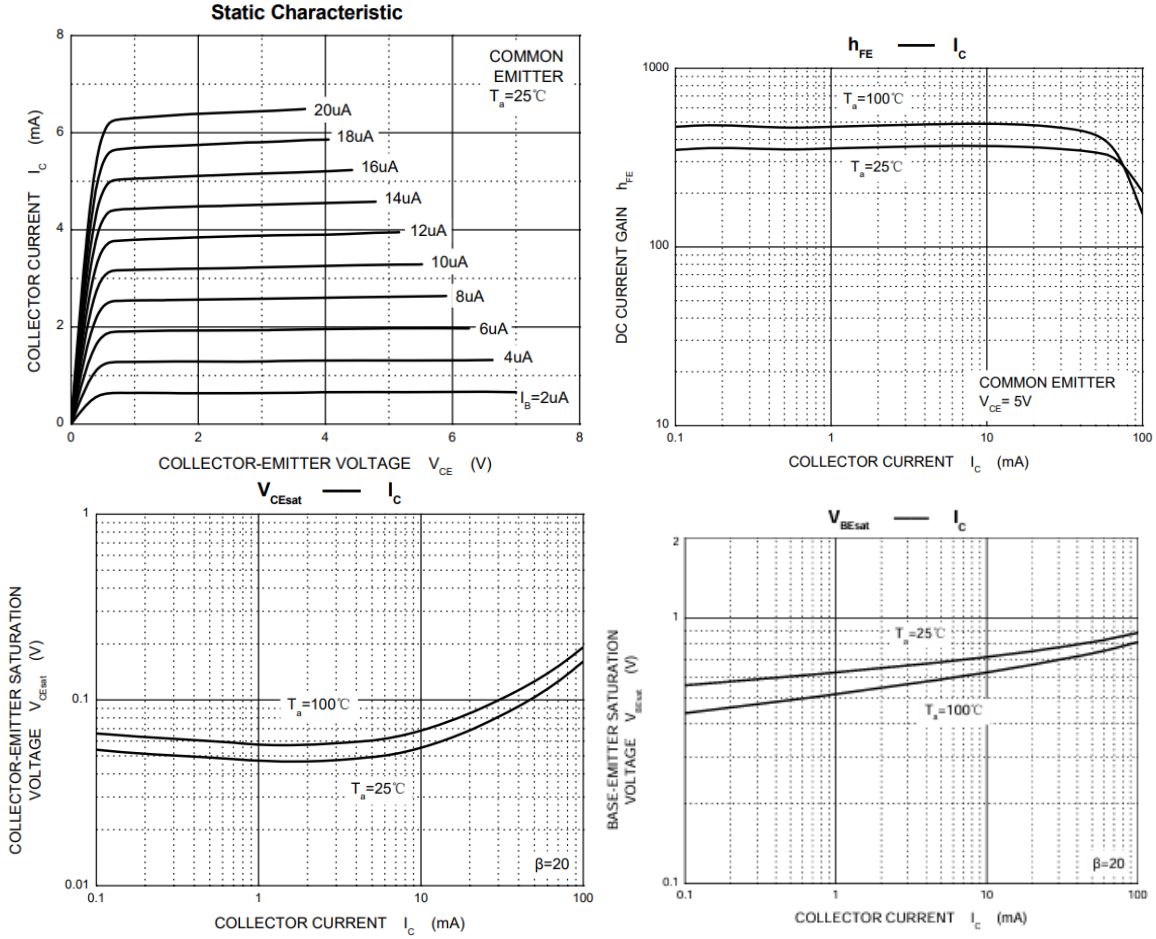
Parameter	Symbol	Condition	Min	Max	Unit
Collector–Emitter Breakdown Voltage	V(BR)CEO	IC = 0.1 mA, IB = 0	45		V

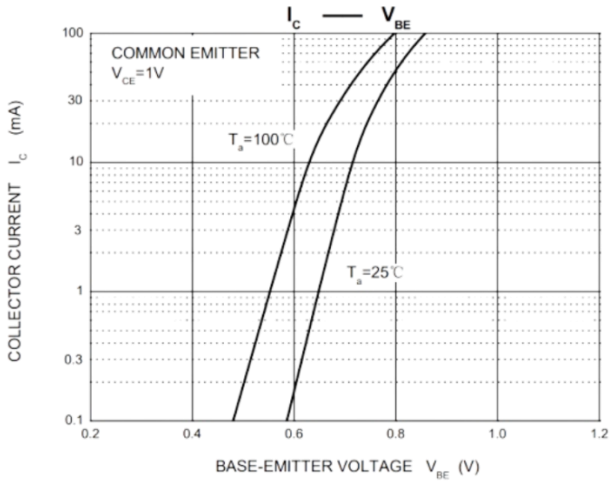
Collector–Base Breakdown Voltage	V(BR)CBO	IC = 100 μA, IE = 0	50		V
Emitter–Base Breakdown Voltage	V(BR)EBO	IE = 100 μA, IC = 0	5		V
Collector-Base cut-off current	ICBO	VCB = 50 V, IE = 0		0.1	μA
Collector-Emitter cut-off current	ICEO	VCE = 35 V, IB=0		1	μA
Emitter-Base cut-off current	IEBO	VEB=3V, IC =0		0.1	μA
DC current gain	hFE	VCE=5V, IC= 1mA	200	1000	
Collector-Emitter Saturation voltage	VCE(sat)	IC = 100mA, IB = 5mA		0.3	V
Base–Emitter Saturation Voltage	VBE(sat)	IC = 100 mA, IB = 5 mA		0.85	V
Transition frequency	fT	IC = 10mA, VCE= 5V, f = 30MHz	150		MHz

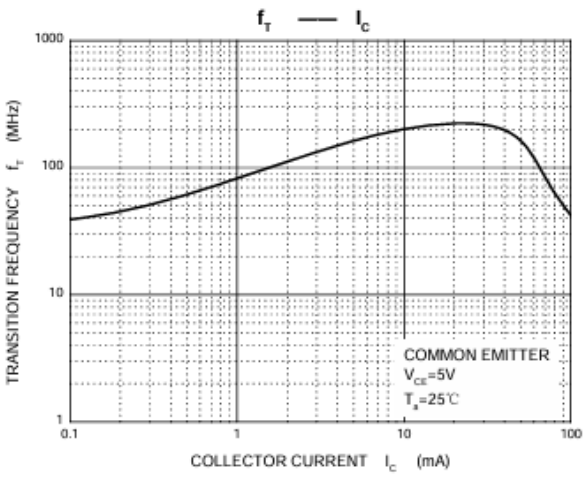
CLASSIFICATION OF hFE

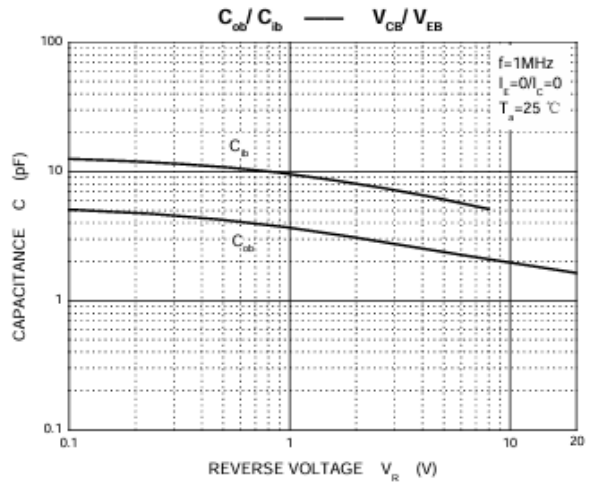
Rank	L	H
Range	200-450	450-1000

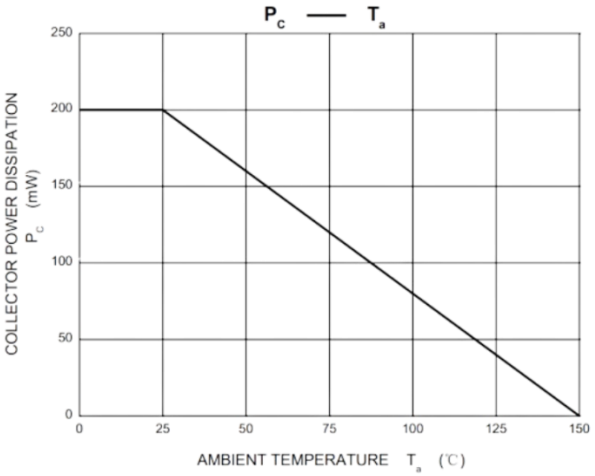
7. ELECTRICAL CHARACTERISTICS CURVES



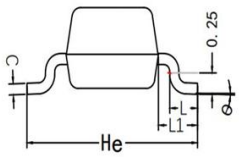


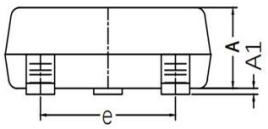


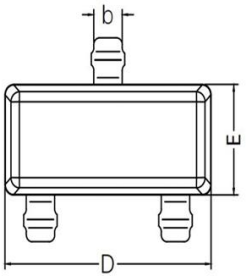




8. OUTLINE AND DIMENSIONS

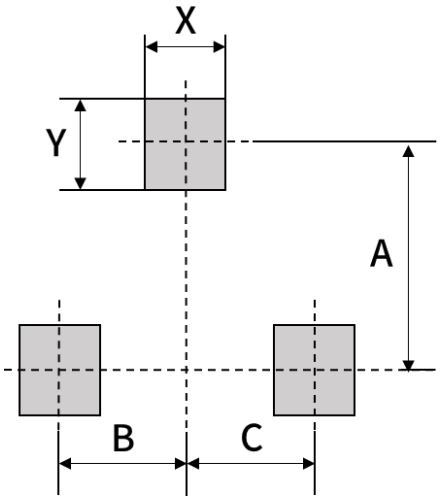






DIM	MIN	NOR	MAX
A	0.85	0.95	1.05
A1	0.01	0.06	0.10
b	0.36	0.44	0.52
c	0.09	0.13	0.18
D	2.80	2.90	3.10
E	1.20	1.30	1.40
e	1.78	1.90	2.04
L	0.30	0.40	0.50
L1	0.35	0.50	0.65
He	2.10	2.35	2.50
θ	0°	-	10°
All Dimensions in mm			

9. SUGGESTED PAD LAYOUT



SOT23		
DIM	mm	inch
A	2.00	0.079
B	0.95	0.037
C	0.95	0.037
X	0.80	0.031
Y	0.90	0.035

10. DISCLAIMER

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