A1015

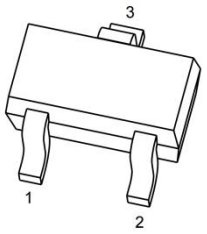
Plastic-Encapsulate Transistors(PNP)

General description
SOT-23 Plastic-Encapsulate Transistors(PNP)

FEATURES
- Complementary to C1815
- Power Dissipation of 200mW
- High Stability and High Reliability
- SOT-23 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

MARKING : BA

SOT-23 Package



1. BASE
2. EMITTER
3. COLLECTOR

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter -Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature	Tstg	-55-+150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	℃/W

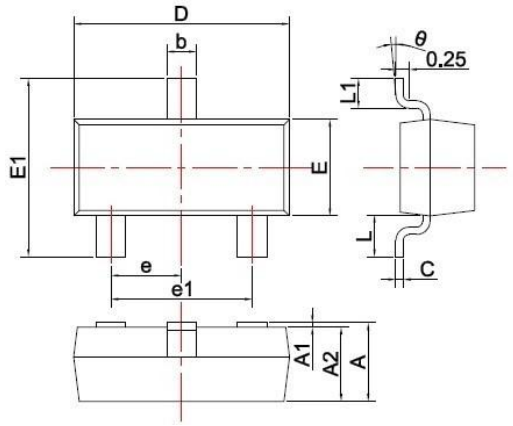
Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10uA, I_E=0	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10uA, I_C=0	-5		V
Collector cut-off current	I_{CEO}	V_{CE}=-50V, I_E=0		-100	nA
Collector cut-off current	I_{CBO}	V_{CB}=-50V, I_E=0		-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0		-100	nA
DC current gain	h_{FE}	V_{CE}=-6V, I_C=2mA	130	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA		-0.30	V
Base -emitter saturation voltage	$V_{BE(sat)}$	I_C=-100mA, I_B=-10mA		-1.10	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-1mA,f=30MHz	80		MHz

CLASSIFICATION OF hFE

HFE	130-400	
RANK	L	H
RANGE	130-200	200-400

SOT-23 PACKAGE OUTLINE Plastic surface mounted package

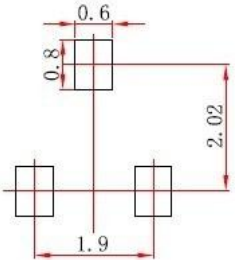


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



Note:
1.Controlling dimension:In millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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