

Plastic-Encapsulate Transistors(PNP)

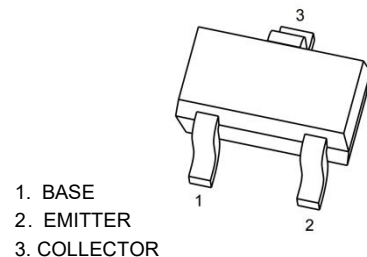
General description

SOT-23 Plastic-Encapsulate Transistors(PNP)

SOT-23 Package

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

Maximum Ratings & Thermal Characteristics (Ratings at 25°C 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	°C
Storage Temperature	T_{stg}	-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	°C/W

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

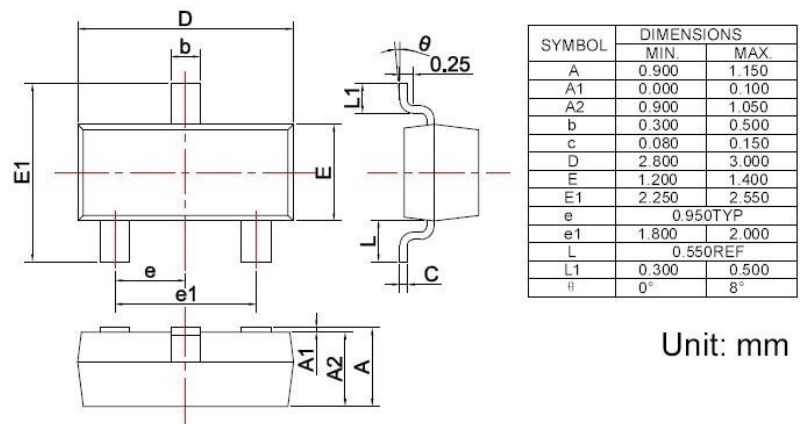
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5		V
Collector 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 h_{FE}

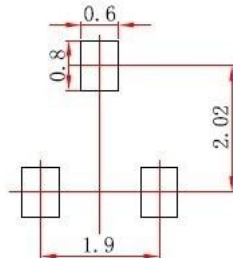
HFE	130-400	
RANK	L	H
RANGE	130-200	200-400

A1015

SOT-23 PACKAGE OUTLINE Plastic surface mounted package



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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