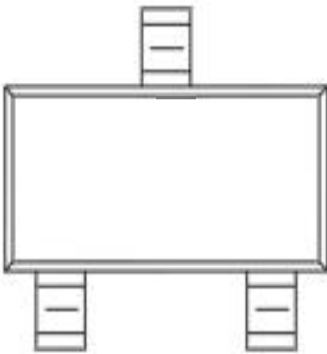


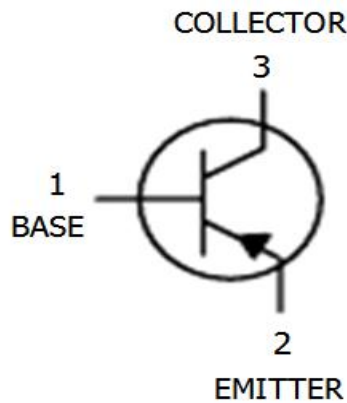
## SOT-23 Plastic-Encapsulate MOSFETS

### 2SA1312 TRANSISTOR (PNP)

**MARKING:**



**Equivalent Circuit:**



**SOT-23**

- 1.BASE
- 2.EMITTER
- 3.COLLECTOR



**FEATURES:**

- ※ High voltage.
- ※ High hFE.
- ※ Low noise.
- ※ Small package.

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	-120	V
Collector-Emitter Voltage	VCEO	-120	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current	IC	-100	A
Base current	IB	-20	A
Collector Power Dissipation	PC	150	W
Thermal Resistance From Junction To Ambient	RθJA	350	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

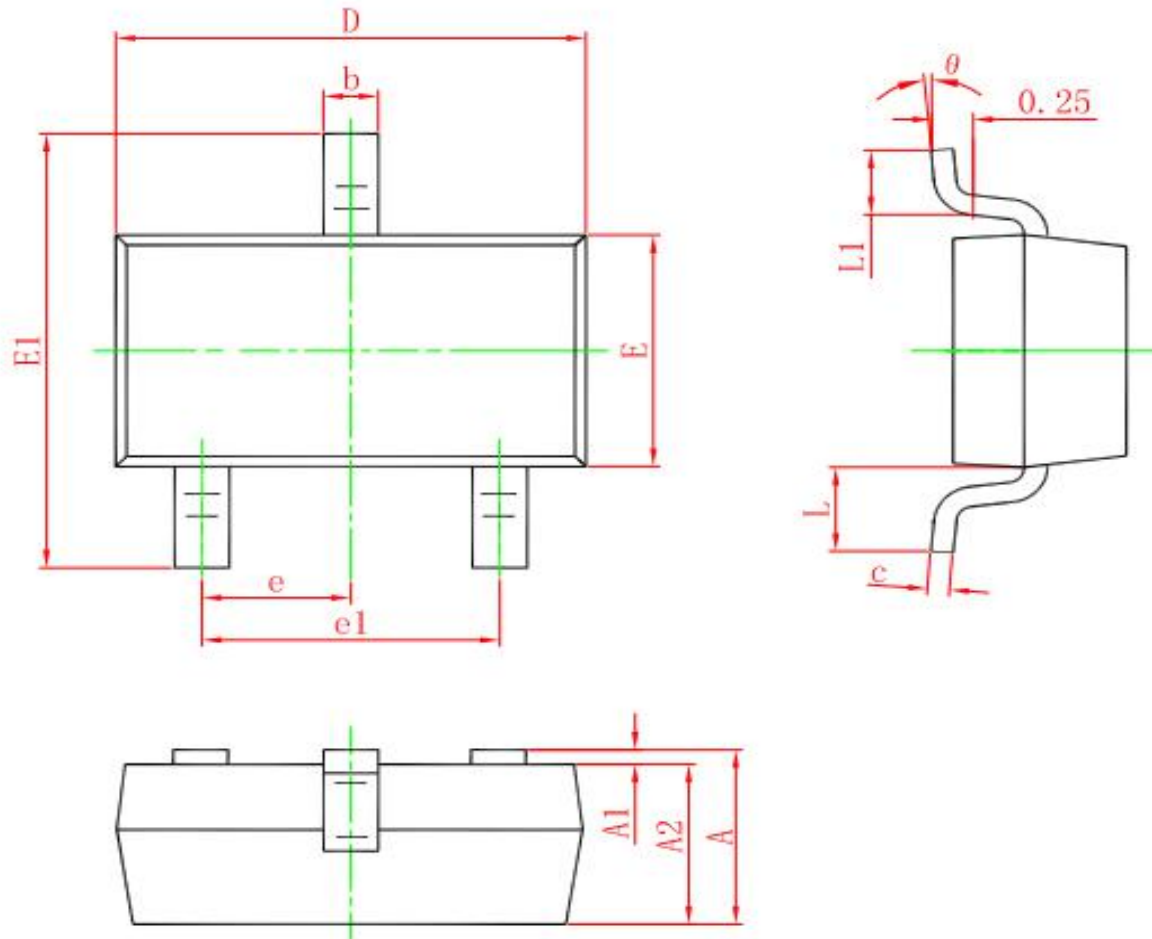
### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC= -100μA, IE=0	-120			V
Collector-emitter breakdown voltage	V(BR)CEO	IC= -1mA, IB=0	-120			V
Emitter-base breakdown voltage	V(BR)EBO	IE= -10μA, IC=0	-5			V
Collector cut-off current	ICBO	VCE= -120 V , IE=0			-0.1	μA
Emitter cut-off current	IEBO	VEB= -5V , IC=0			-0.1	μA
DC current gain	hFE	VCE=-6V, IC= -2mA	200		700	
Collector-emitter saturation voltage	VCE(sat)	IC= -10 mA, IB= -1mA			-0.3	V
Base-emitter saturation voltage	VBE(sat)	IC= -10 mA, IB= -1mA			-1	V
Transition frequency	fT	VCE=-6V, IC= 10mA f=1MHz,		100		MHz
Collector output capacitance	Cob	VCE = 10 V, IE = 0, f = 1 MHz		4		PF
Noise figure	NF	VCE=-6V, IC= -0.1mA f=1MHz, Rg=10KΩ		0.5	6	dB
	NF	VCE=-6V, IC= -0.1mA f=1MHz, Rg=10KΩ		0.2	3	dB

### CLASSIFICATION OF hFE

Rank	<b>GR</b>	<b>BL</b>
Range	<b>200-400</b>	<b>350-700</b>
MARKING	<b>ABG</b>	<b>ABL</b>

### SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°