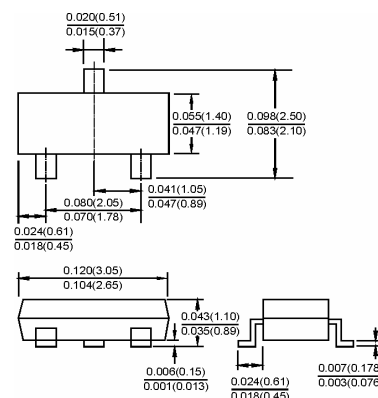




1. BASE
2. EMITTER
3. COLLECTOR

SOT-23



Dimensions in inches and (millimeters)

Features

- ✧ High voltage and high current
- ✧ $V_{CEO} = -50V(\text{min.}), I_C = -150mA(\text{max.})$
- ✧ Excellent h_{FE} Linearity
 $h_{FE(2)} = 80(\text{Typ.})$ at $V_{CE} = -6V, I_C = -150mA$
 $h_{FE}(I_C = -0.1mA) / h_{FE}(I_C = -2mA) = 0.95(\text{Typ.})$
- ✧ Low noise: $NF = 1dB(\text{Typ.})$ at $f = 1KHz$
- ✧ Complementary to C1815

MARKING: BA

MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)

Symbol	Parameter	Value	Units
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	150	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	125	$^\circ C$
T_{stg}	Storage Temperature	-55-125	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -0.1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -50V, I_B = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -2mA$	130		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA, I_B = -10mA$			-1.1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -1mA$ $f = 30MHz$	80			MHz

CLASSIFICATION OF h_{FE}

Rank	L	H
Range	130-200	200-400

Typical Characteristics

