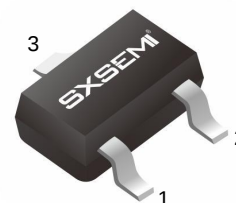


FEATURES

- High breakdown voltage. ($BV_{CEO} = -120V$)
- Complements the 2SC4102

SOT-323



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS ($T_a=25^{\circ}C$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-50	mA
P_C	Collector Power Dissipation	100	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	1250	$^{\circ}C/W$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	$^{\circ}C$

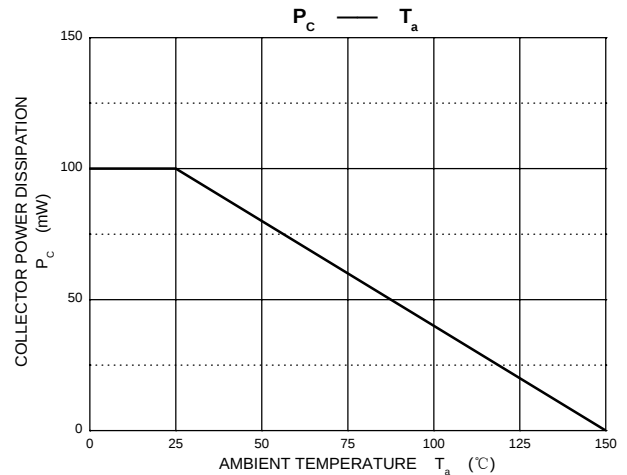
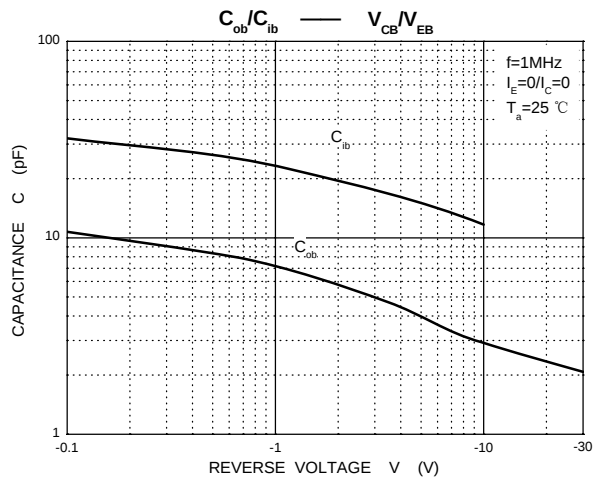
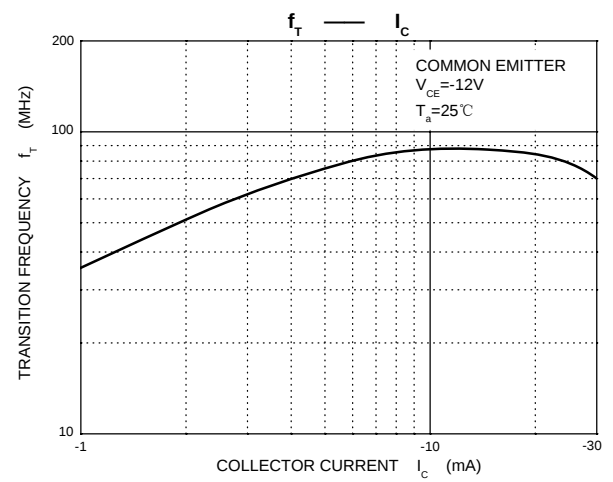
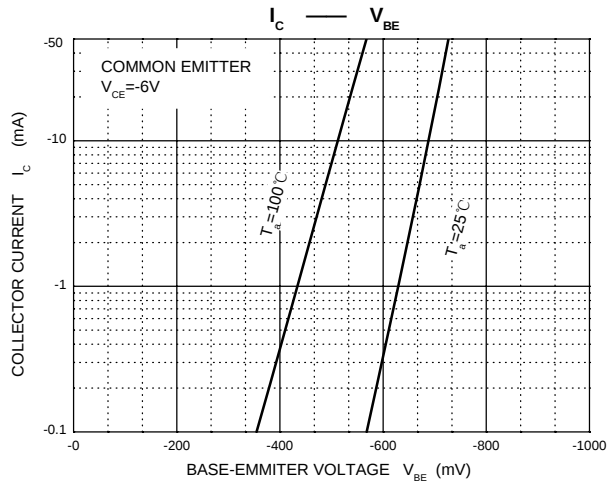
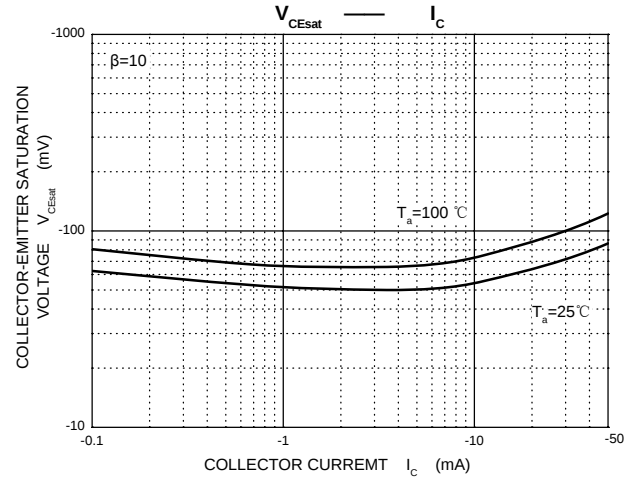
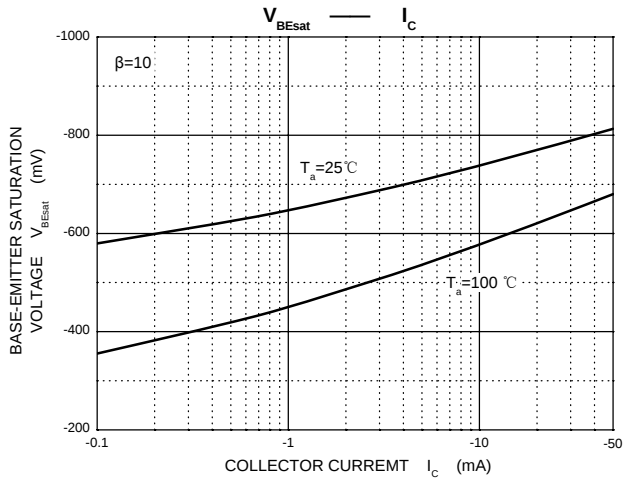
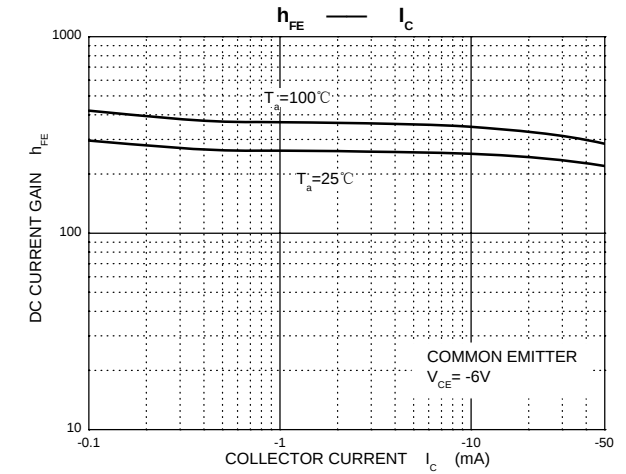
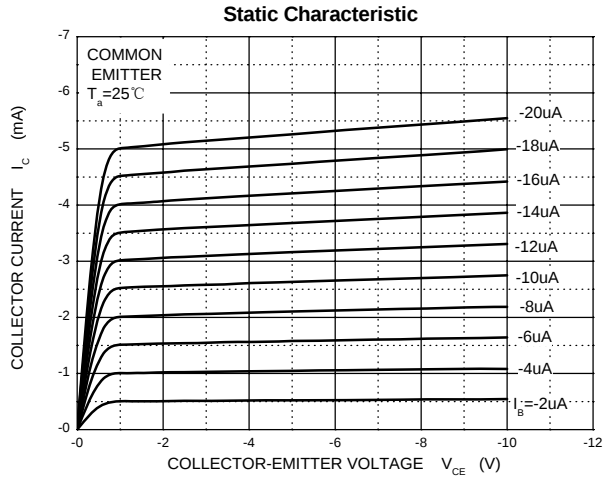
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-50\mu A, I_E=0$	-120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-50\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-100V, I_E=0$			-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.5	μA
DC current gain	h_{FE}	$V_{CE}=-6V, I_C=-2mA$	180		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=-1mA$			-0.5	V
Transition frequency	f_T	$V_{CE}=-12V, I_C=-2mA, f=30MHz$		140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-12V, I_E=0, f=1MHz$		3.2		pF

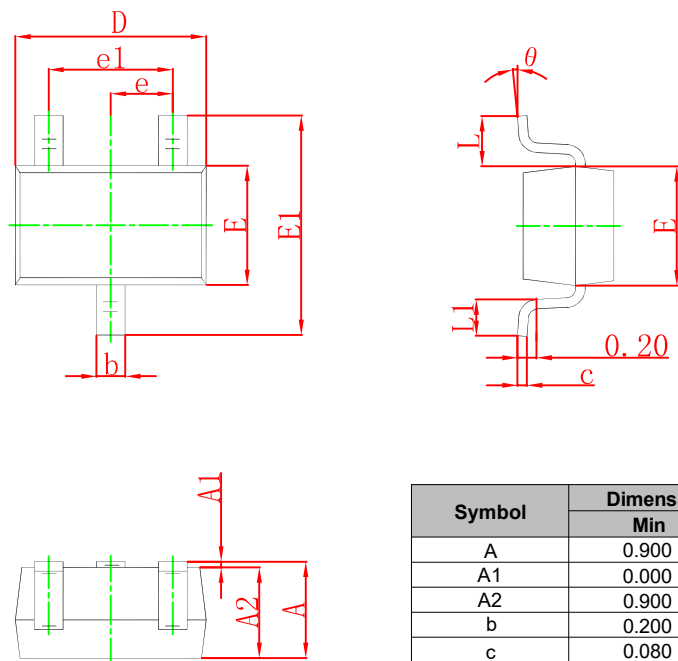
CLASSIFICATION OF h_{FE}

Rank	R	S
Range	180-390	270-560
Marking	RR	RS

Typical Characteristics

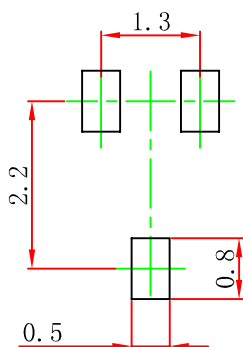


SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
theta	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.