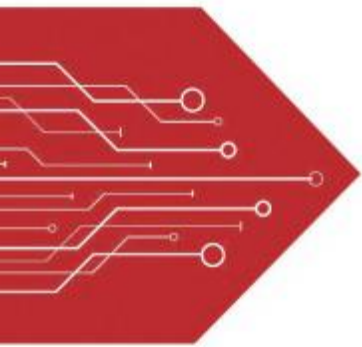


MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

TRANSISTOR (PNP)

FEATURES

- Small Surface Mount Package
- High DC Current Gain



1. BASE
2. EMITTER
3. COLLECTOR

SOT -323

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-45	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _c	Collector Current	-100	mA
P _c	Collector Power Dissipation	200	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	625	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

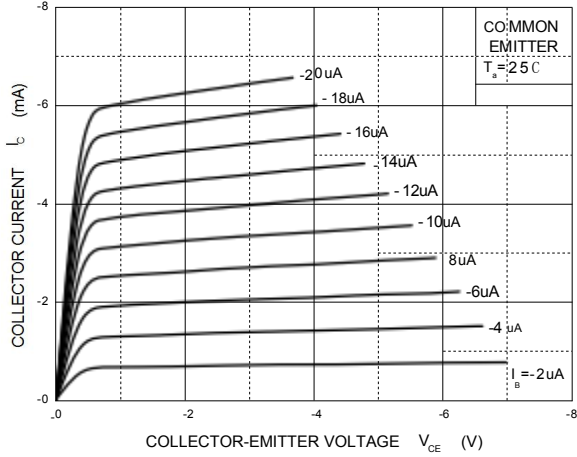
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CB0}	I _c =-100μA, I _E =0	-50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c =-100μA, I _B =0	-45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _c =0	-5			V
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} =-5V, I _c =-1mA	200		1000	
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	V
Base-emitter voltage	V _{BE}	V _{CE} =-5V, I _c =-1mA	-0.6		-0.75	V
Transition frequency	f _T	V _{CE} =-5V, I _c =-10mA, f=30MHz	150			MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			7	pF

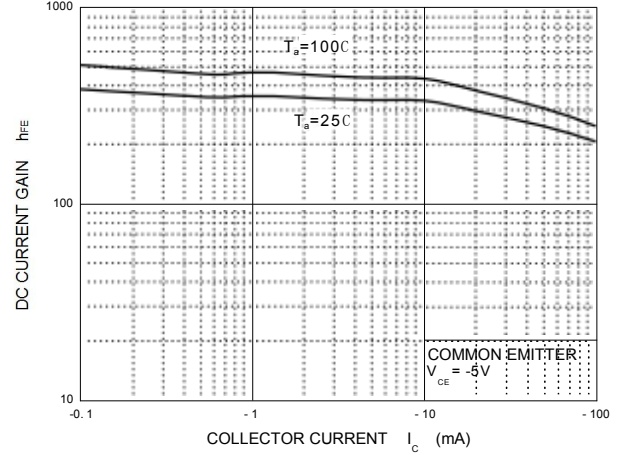
CLASSIFICATION OF h_{FE}

RANK	L	H
RANGE	200 -450	400 - 1000
MARKING	M6	

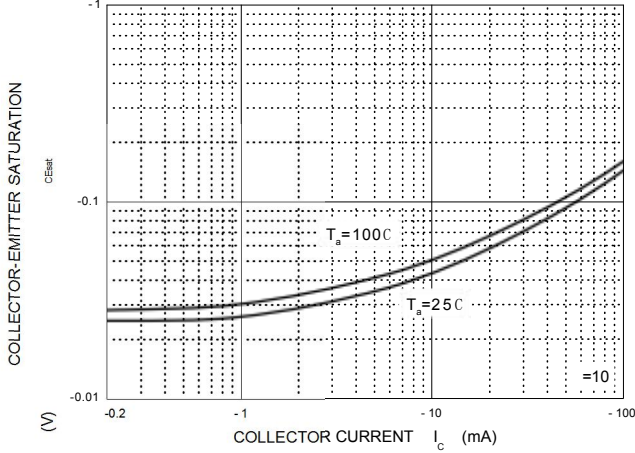
Static Characteristic



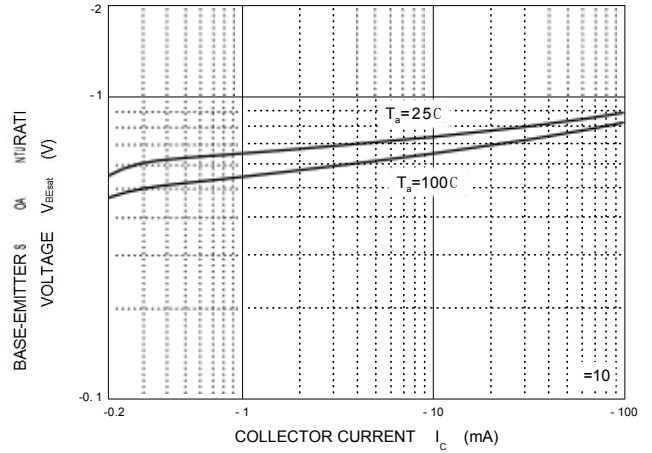
h_{FE} — I_c



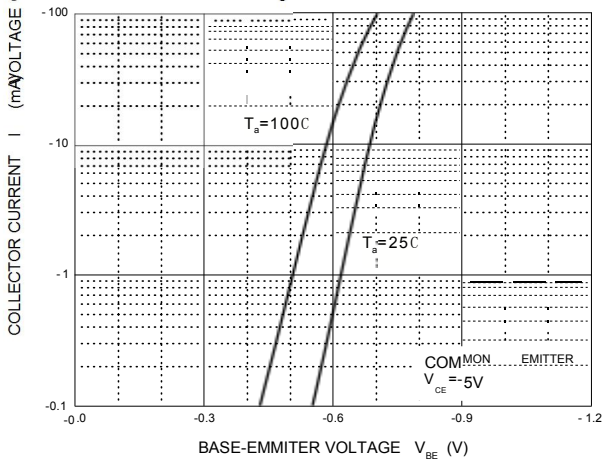
V_{CEsat} — I_c



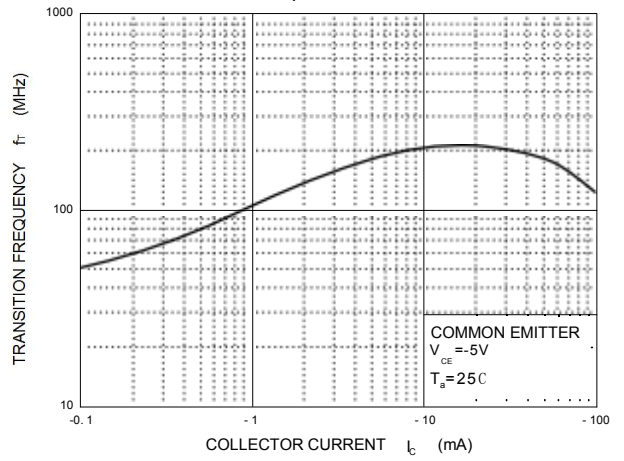
V_{BEsat} — I_c



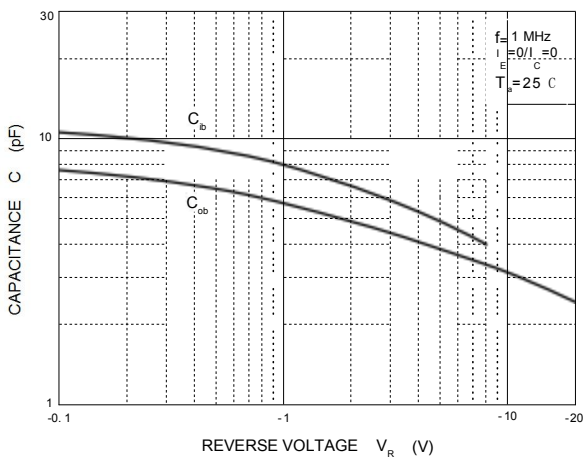
I_c — V_{BE}



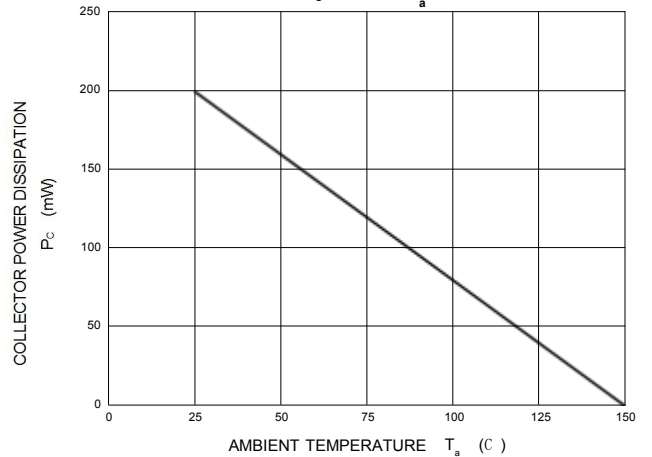
f_T — I_c



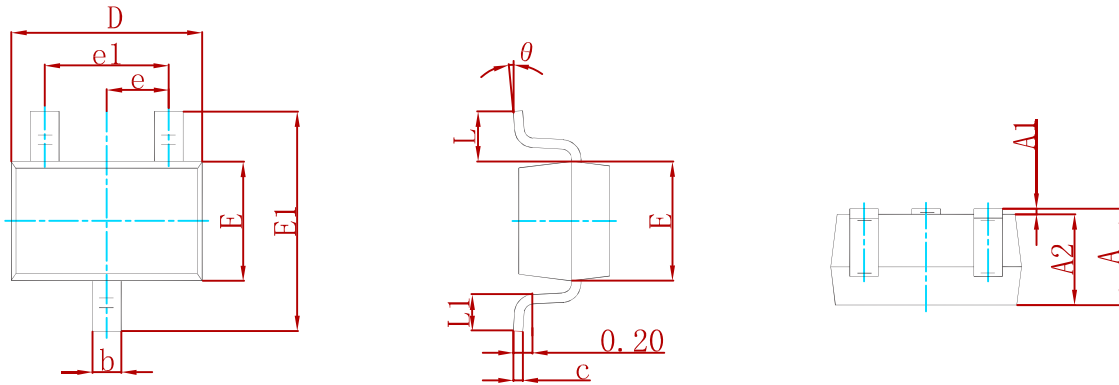
C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_c — T_a

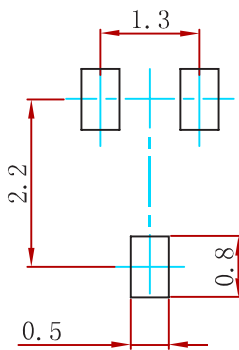


PACKAGE MECHANICAL DATA



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
θ	0°	8°	0°	8°

Suggested Pad Layout



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

REEL SPECIFICATION

P/N	PKG	QTY
S9015W	SOT-323	3000

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