SOT-23 Plastic- Encapsulate Tranaiators

Features

- Complementary to MMBT5401
- Power Dissipation of 300mW
- High Stability and High Reliability.

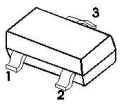
RoHS
COMPLIANT

Marking: G1 **SOT-23**

Mechanical Data

- PackageType: SOT-23,Small Outline Plastic Package.
- Epoxy UL: 94V-0
- Mounting Position: Any

Pin definition



1. BASE
2. EMITTER
3. COLLECTOR

Maximum Ratings & Thermal Characteristics (T_A=25℃ unless otherwise noted)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Volta	V_{CEO}	160	V
Emitter -Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	600	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55-+150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	416	℃/W

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector -base breakdown voltage	V(BR)CBO	IC=100uA, IE=0	180		V
Collector -emitter breakdown voltage	V(BR)CEO *	IC=1mA, IB=0	160		V
Emitter -base breakdown voltage	V(BR)EBO	IE=10uA, IC=0	6		V
Collector cut -off current	ICBO	VCB=120V, IE=0		50	nA
Emitter cut -off current	IEBO	VEB=4V, IC=0		50	nA
DC current gain	hFE(1) *	VCE=5V, IC=1mA	80		
	hFE(2) *	VCE=5V, IC=10mA	100	300	
	hFE(3) *	VCE=5V, IC=50mA	30		
Collector -emitter saturation voltage	VCE(sat)1 *	IC=10mA, IB=1mA		0.15	V
	VCE(sat)2 *	IC=50mA, IB=5mA		0.20	V
Base -emitter saturation voltage	VBE(sat)1 *	IC=10mA, IB=1mA		1.00	V
	VBE(sat)2 *	IC=50mA, IB=5mA		1.00	V
Transition frequency	fT	VCE=10V, IC=10mA,f=100MHz	100	300	MHz
Collector output capacitance	Cob	VCB=10V, IE=0, f=1MHz		6	pF

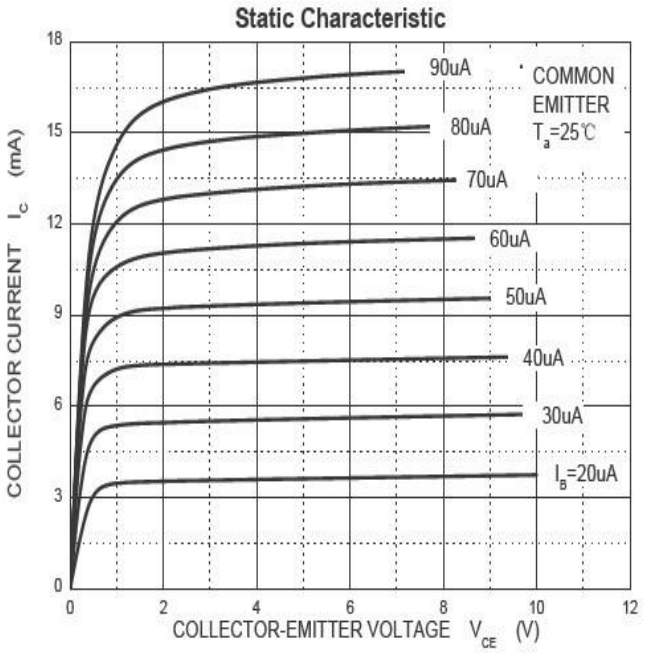
*Pulse test: pulse width≤300us, duty cycle≤2.0%

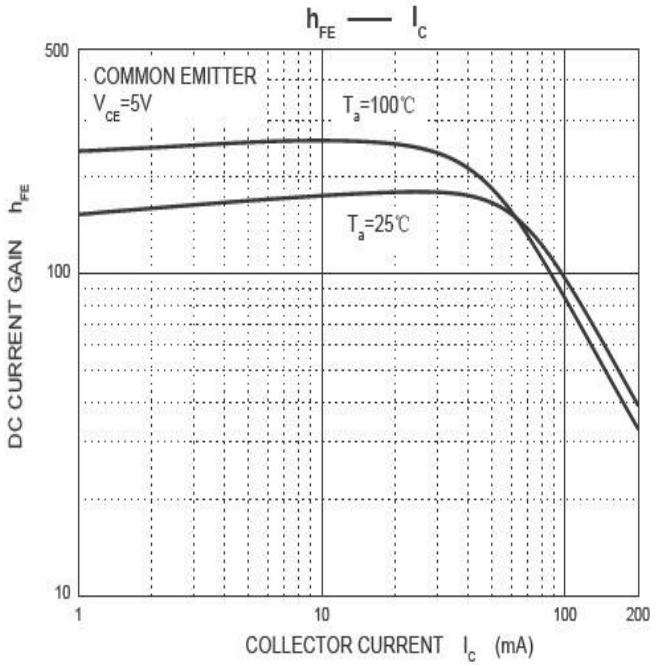
ClassIsIcatIon OF $h_{FE(2)}$

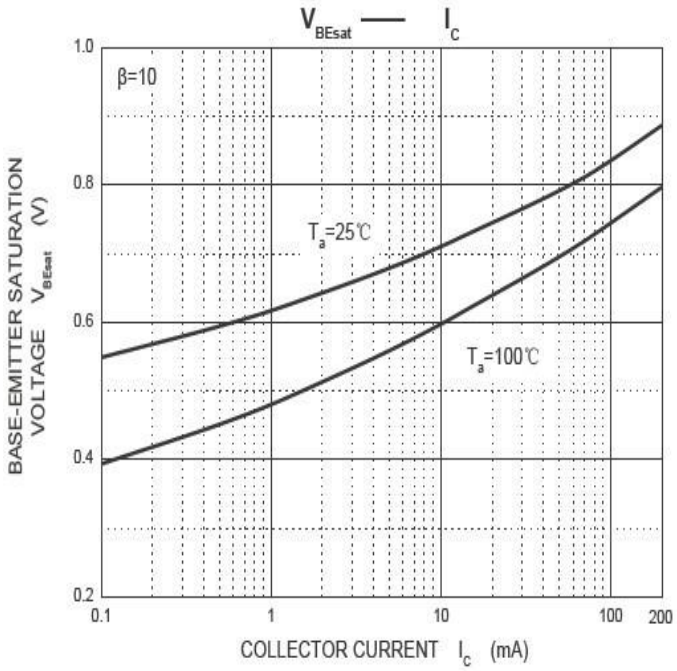
HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

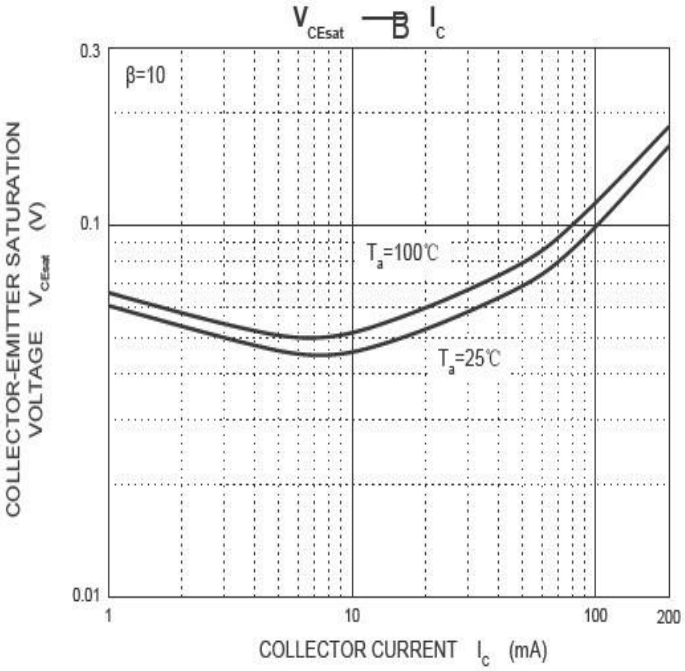
Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)









Ratings and Characteristics Curves

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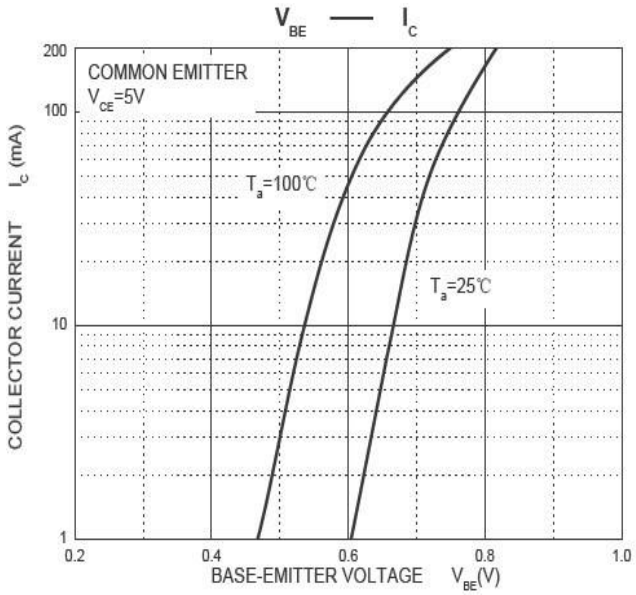
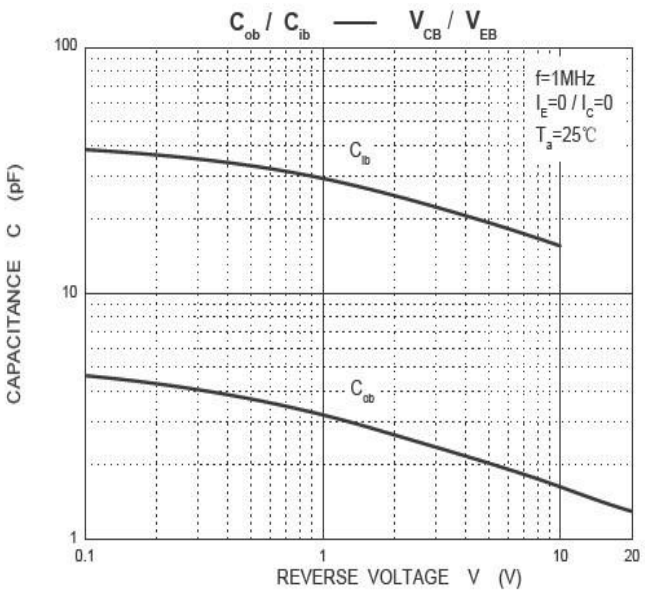
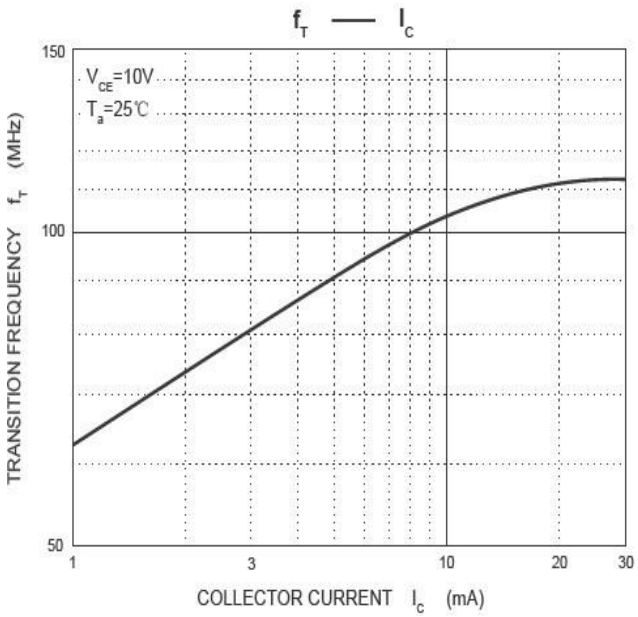
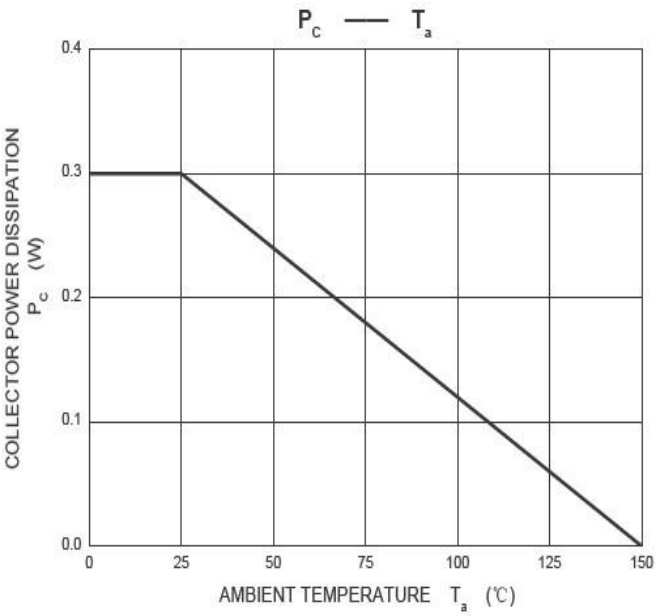


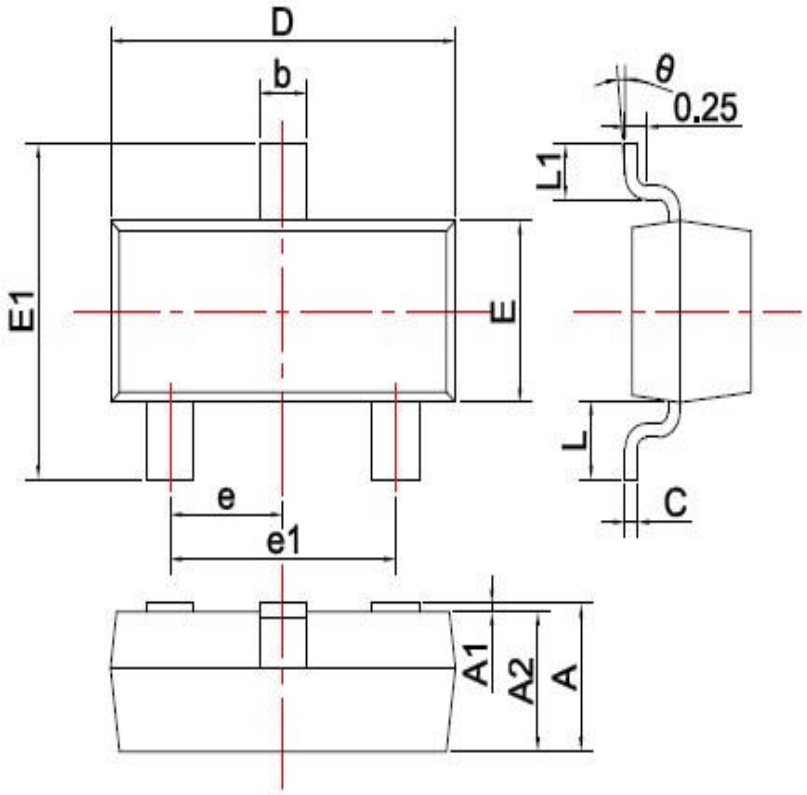






Package Outline Dimensions

millimeters



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2017.06.13	First issue

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