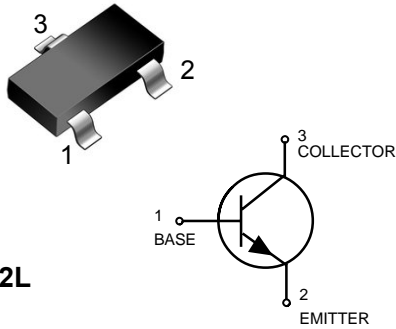


SOT-23



MARKING: 2L

Features

As complementary type the PNP transistor MMBT5551 is recommended
 Epitaxial planar die construction
 Halogen free and RoHS compliant

Mechanical Data

SOT-23 Small Outline Plastic Package
 Epoxy UL: 94V-0

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7" reel	3000	EIA-481-1

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-160	V
Collector-Emitter Voltage	V _{CEO}	-150	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _c	-600	mA
Collector Power Dissipation	P _c	300	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	416	°C/W

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified).

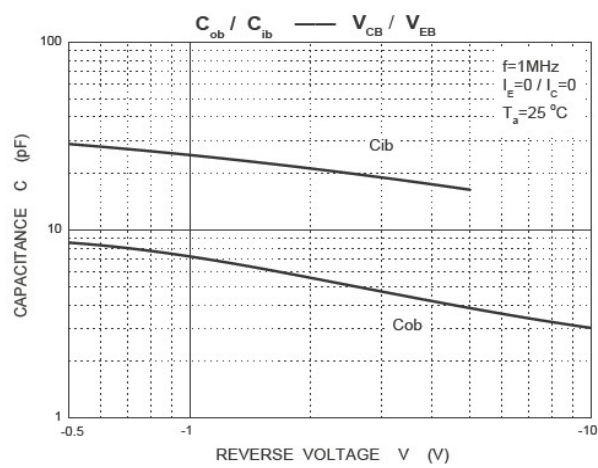
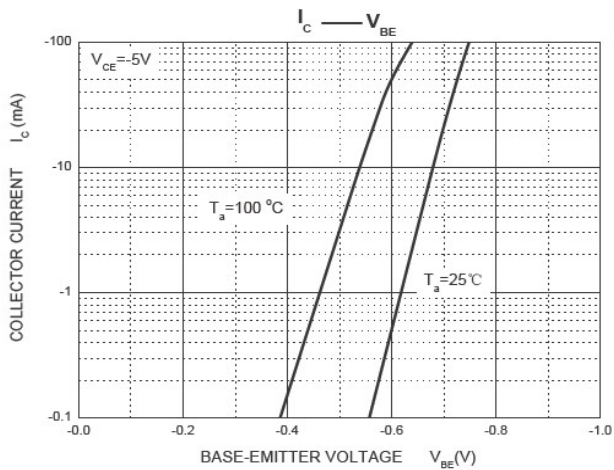
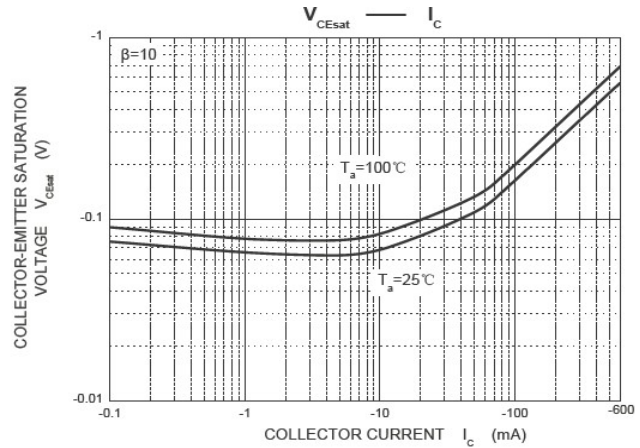
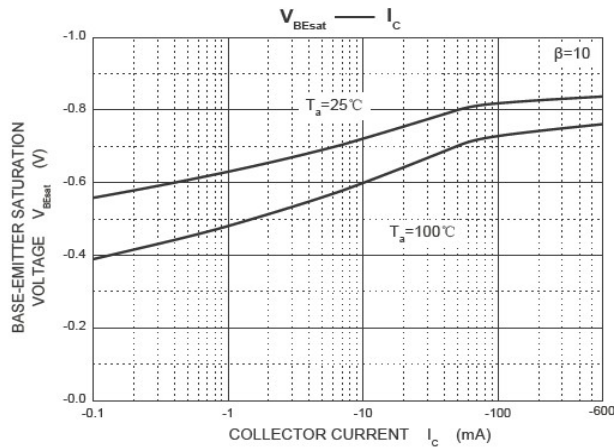
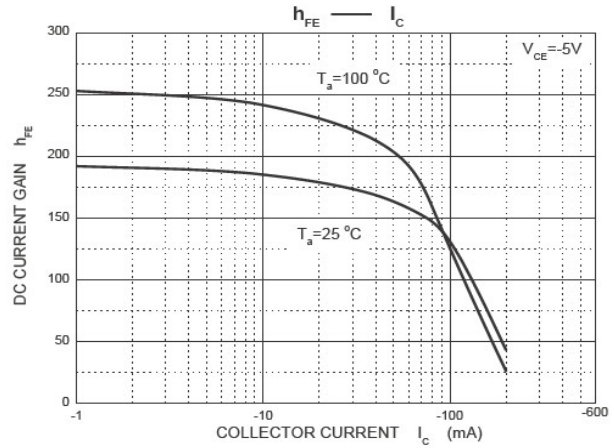
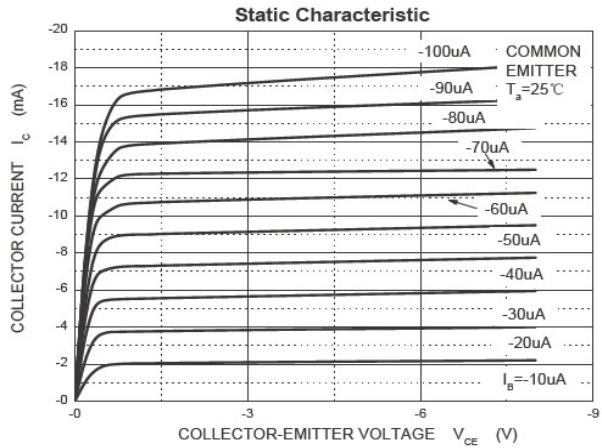
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =-100uA, I _E =0	-160		V
Collector-emitter breakdown voltage	V(BR)CEO *	I _C =-1mA, I _B =0	-150		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-10uA, I _C =0	-5		V
Collector cut-off current	I _{CB0}	V _{CB} =-120V, I _E =0		-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-4V, I _C =0		-100	nA
DC current gain	h _{FE} (1) *	V _{CE} =-5V, I _C =-1mA	80		
	h _{FE} (2) *	V _{CE} =-5V, I _C =-10mA	100	300	
	h _{FE} (3) *	V _{CE} =-5V, I _C =-50mA	30		
Collector-emitter saturation voltage	V _{CE(sat)1} *	I _C =-10mA, I _B =-1mA		-0.2	V
	V _{CE(sat)2} *	I _C =-50mA, I _B =-5mA		-0.5	V
Base -emitter saturation voltage	V _{BE(sat)1} *	I _C =-10mA, I _B =-1mA		-1.00	V
	V _{BE(sat)2} *	I _C =-50mA, I _B =-5mA		-1.00	V
Transition frequency	f _T	V _{CE} =-5V, I _C =10mA, f=30MHz	100		MHz

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

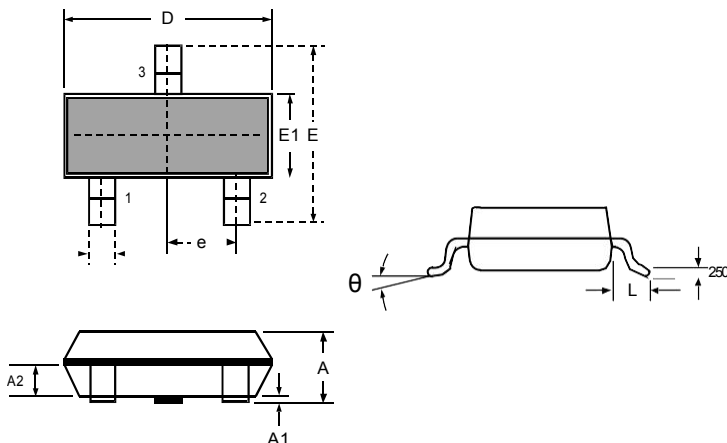
CLASSIFICATION OF h_{FE}(2)

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

Ratings and Characteristic Curves



Package Outline Dimensions: SOT-23



DIMENSIONS

SYMBOL	MILLIMETER		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
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0	8°	0	8°