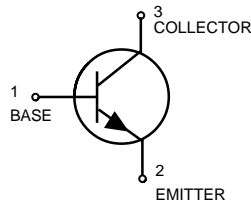
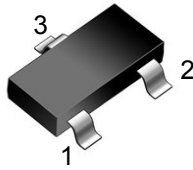


SOT-23



MARKING: G1

Features

As complementary type the transistor PMBT5401 is recommended
 Epitaxial planar die construction
 Halogen free and RoHS compliant

Mechanical Data

SOT-23 Small Outline Plastic Package
 EpoxyUL: 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}	180	V
Collector-Emitter Voltage	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	°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.)

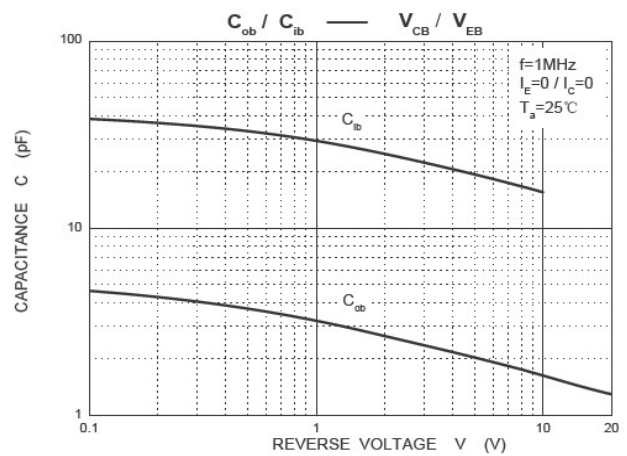
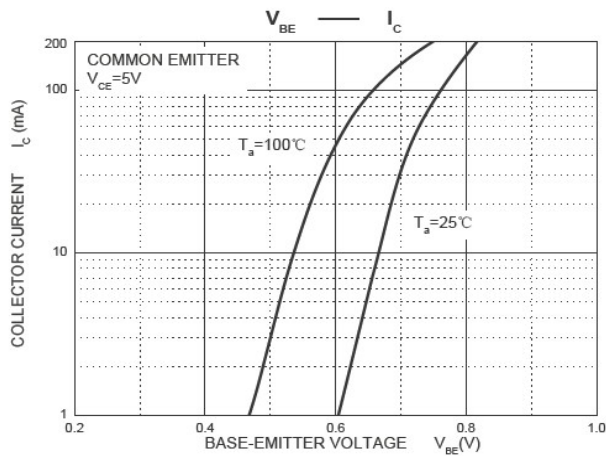
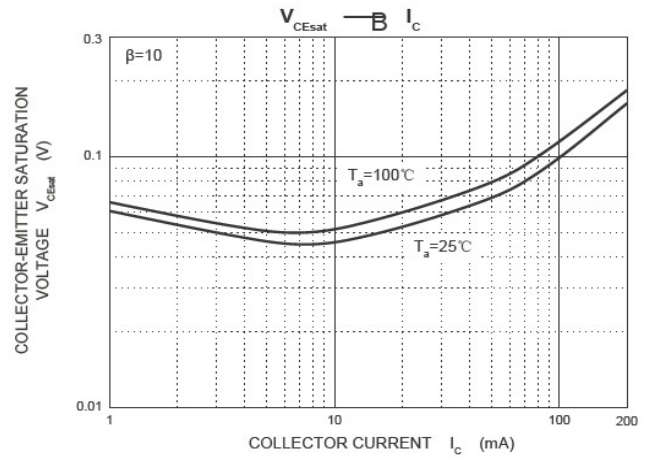
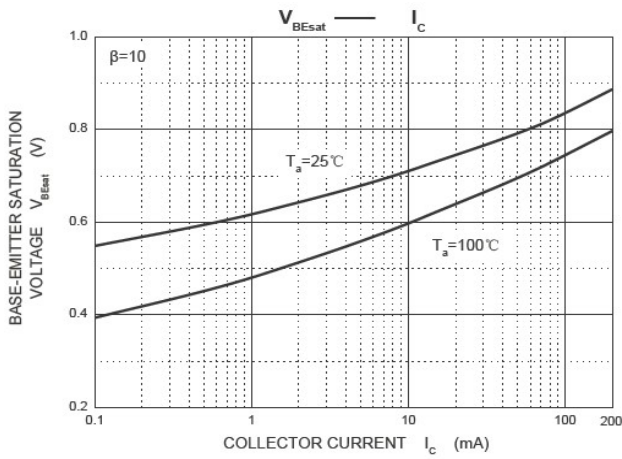
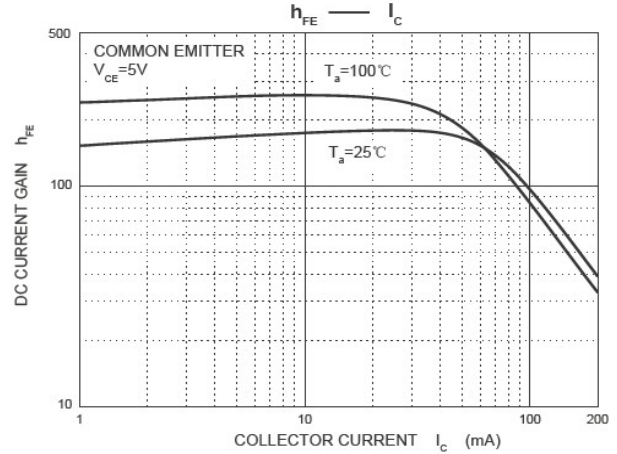
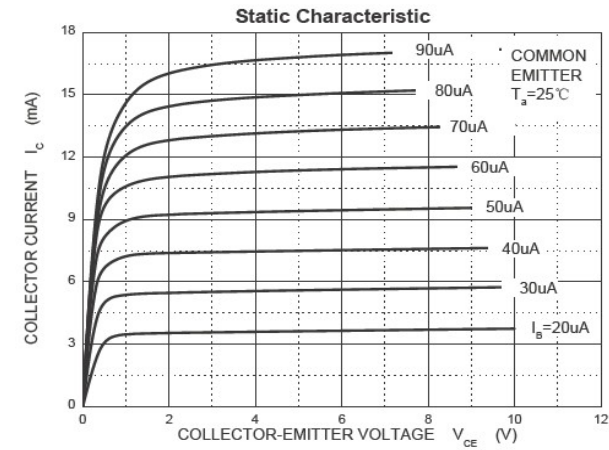
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =100uA, I _E =0	180		V
Collector-emitter breakdown voltage	V(BR)CEO *	I _C =1mA, I _B =0	160		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =10uA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} =120V, I _E =0		50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0		50	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		0.15	V
	V _{CE(sat)2} *	I _C =50mA, I _B =5mA		0.20	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} =10V, I _C =10mA, f=100MHz	100	300	MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		6	pF

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

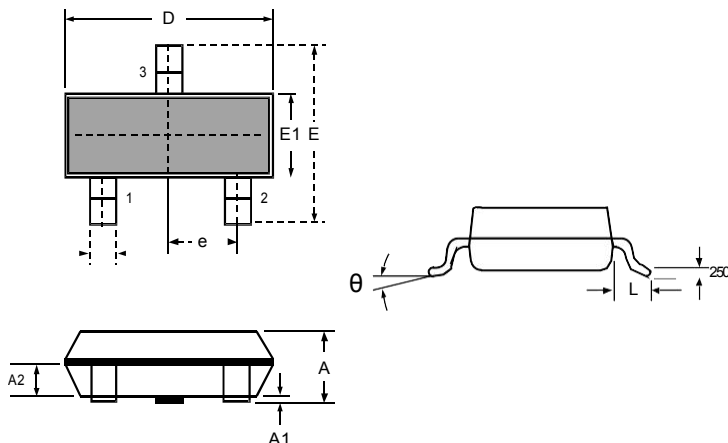
CLASSIFICATION OF h_{FE}(2)

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°

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