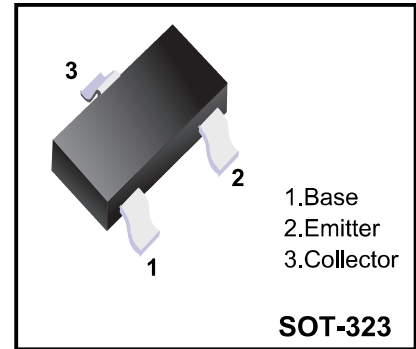


Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

- †Excellent hFE linearity
- †Complements the 2SC4081



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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_c	-150	mA
Collector Power Dissipation	P_c	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C

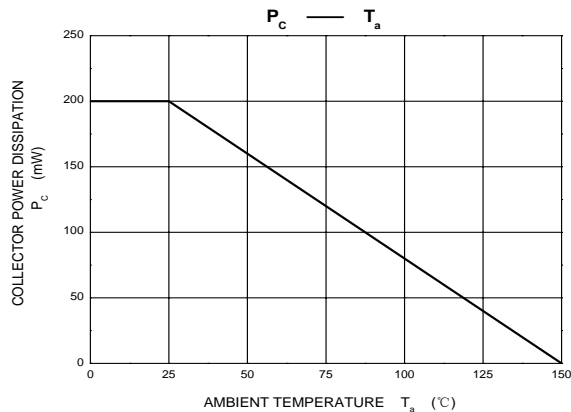
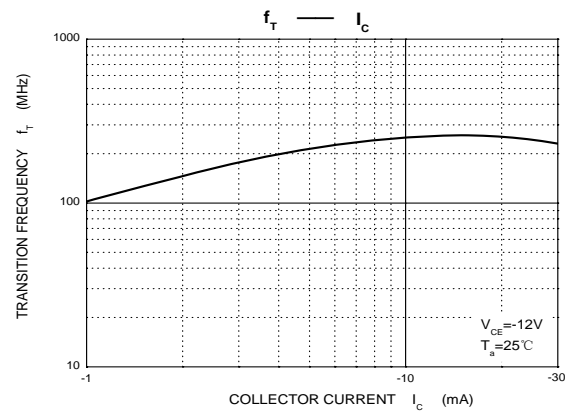
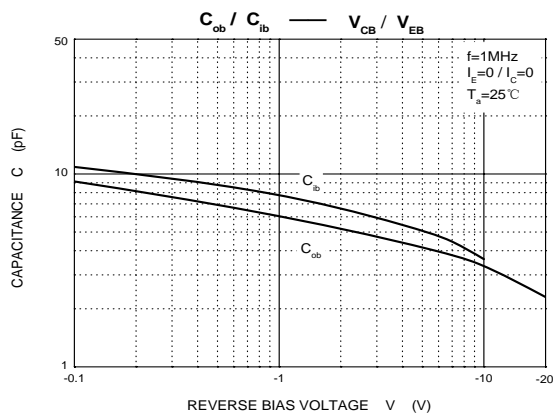
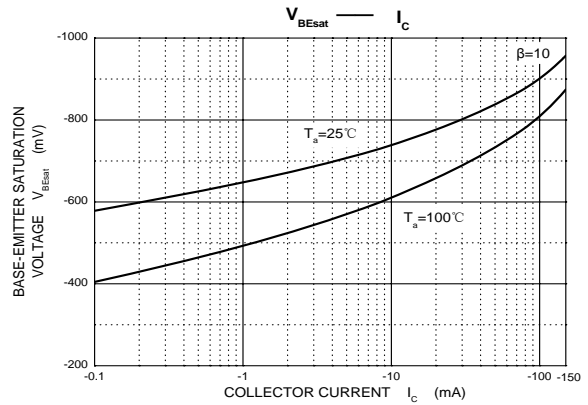
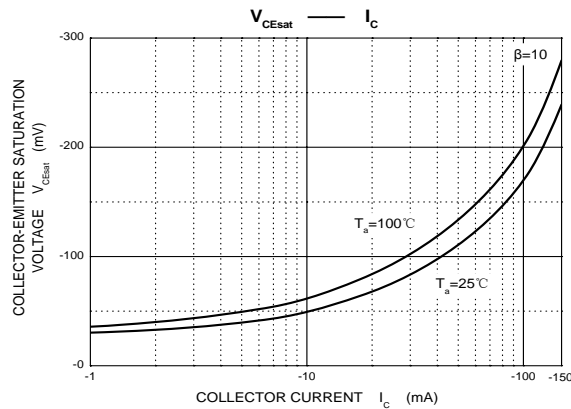
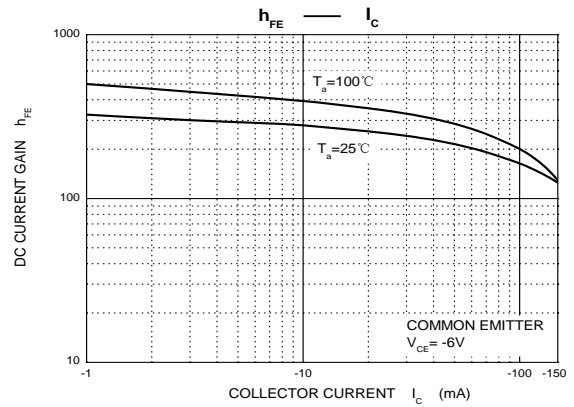
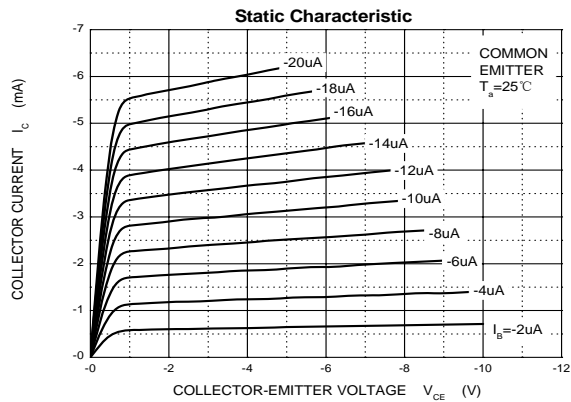
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Collector-base breakdown voltage	$I_c = -50\mu A, I_E = 0$	$V_{(BR)CBO}$	-60			V
Collector-emitter breakdown voltage	$I_c = -1mA, I_B = 0$	$V_{(BR)CEO}$	-50			V
Emitter-base breakdown voltage	$I_E = -50\mu A, I_c = 0$	$V_{(BR)EBO}$	-6			V
Collector cut-off current	$V_{CB} = -60V, I_E = 0$	I_{CBO}			-0.1	μA
Emitter cut-off current	$V_{EB} = -6V, I_c = 0$	I_{EBO}			-0.1	μA
DC current gain	$V_{CE} = -6V, I_c = -1mA$	h_{FE}	120		560	
Collector-emitter saturation voltage	$I_c = -50mA, I_B = -5mA$	$V_{CE(sat)}$			-0.5	V
Transition frequency	$V_{CE} = -12V, I_c = -2mA, f = 30MHz$	f_r		140		MHz
Collector output capacitance	$V_{CB} = -12V, I_E = 0, f = 1MHz$	C_{ob}		4	5	PF

CLASSIFICATION OF hFE

Rank	MMBTSA1576W-Q	MMBTSA1576W-R	MMBTSA1576W-S
Range	120-270	180-390	270-560
Marking	FQ	FR	FS

Typical Characteristics



Ordering information

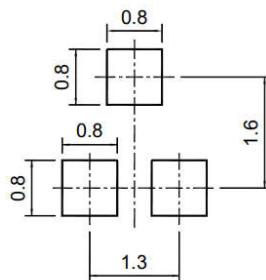
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
E	1.3		51	
E1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



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