

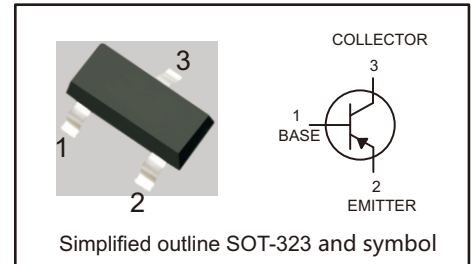
PNP TRANSISTOR

FEATURES

- As complementary type, the NPN transistor
- MMBT3904WG is Recommended
- Epitaxial planar die construction

PINNING

PIN	DESCRIPTION
1	BASE
2	EMITTER
3	COLLECTOR



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

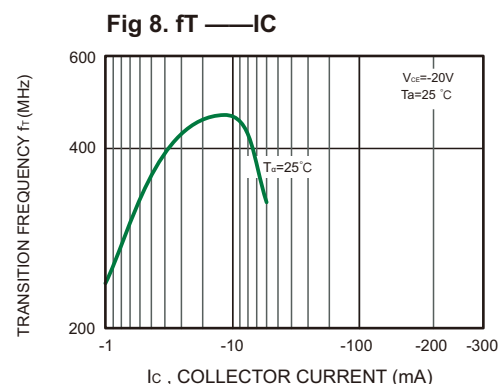
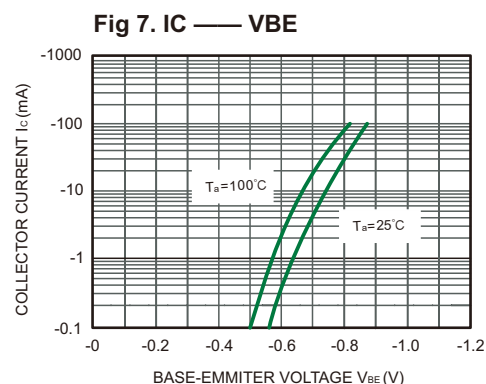
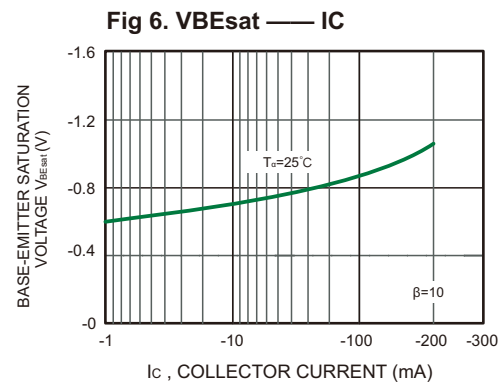
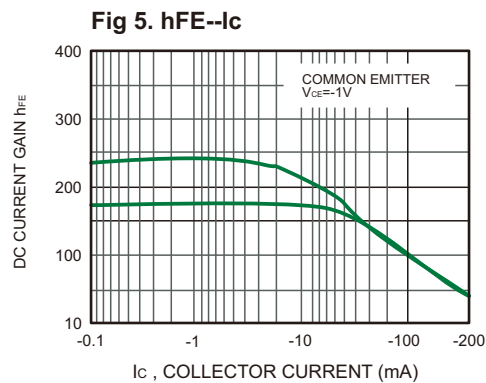
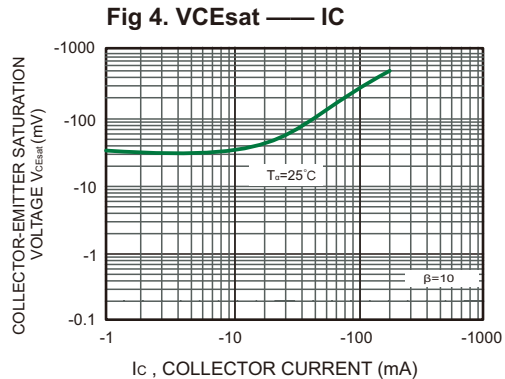
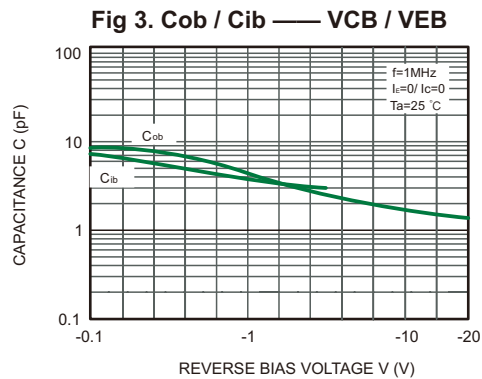
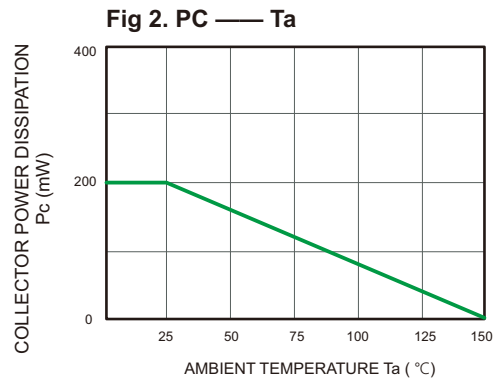
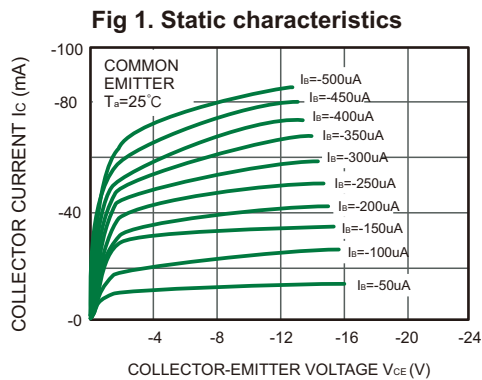
Parameter	Symbol	Value	Unit
Collector–Base Voltage	V_{CBO}	-40	V
Collector–Emitter Voltage	V_{CEO}	-40	V
Emitter–Base Voltage	V_{EBO}	-5	V
Collector Current — Continuous	I_C	-200	mA
Collector Dissipation	P_C	0.2	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}, I_B = 0$	-40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -40V, I_E = 0$		-100	nA
Collector cut-off current	I_{CEX}	$V_{CE} = -30V, V_{EB} = -3V$		-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-100	nA
DC current gain	h_{FE1}	$V_{CE} = -1V, I_C = -10mA$	100	300	
	h_{FE2}	$V_{CE} = -1V, I_C = -50mA$	60		
	h_{FE3}	$V_{CE} = -2V, I_C = -100mA$	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$		-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50mA, I_B = -5mA$		-0.95	V
Transition frequency	f_T	$V_{CE} = -20V, I_C = -10mA, f = 100MHz$	300		MHZ
Delay time	t_d	$V_{CC} = -3V, V_{BE} = 0.5V$ $I_C = -10mA, I_{B1} = I_{B2} = -1mA$		35	ns
Rise time	t_r			35	ns
Storage time	t_s	$V_{CC} = -3V, I_C = -10mA$ $I_{B1} = I_{B2} = -1mA$		225	ns
Fall time	t_f			75	ns

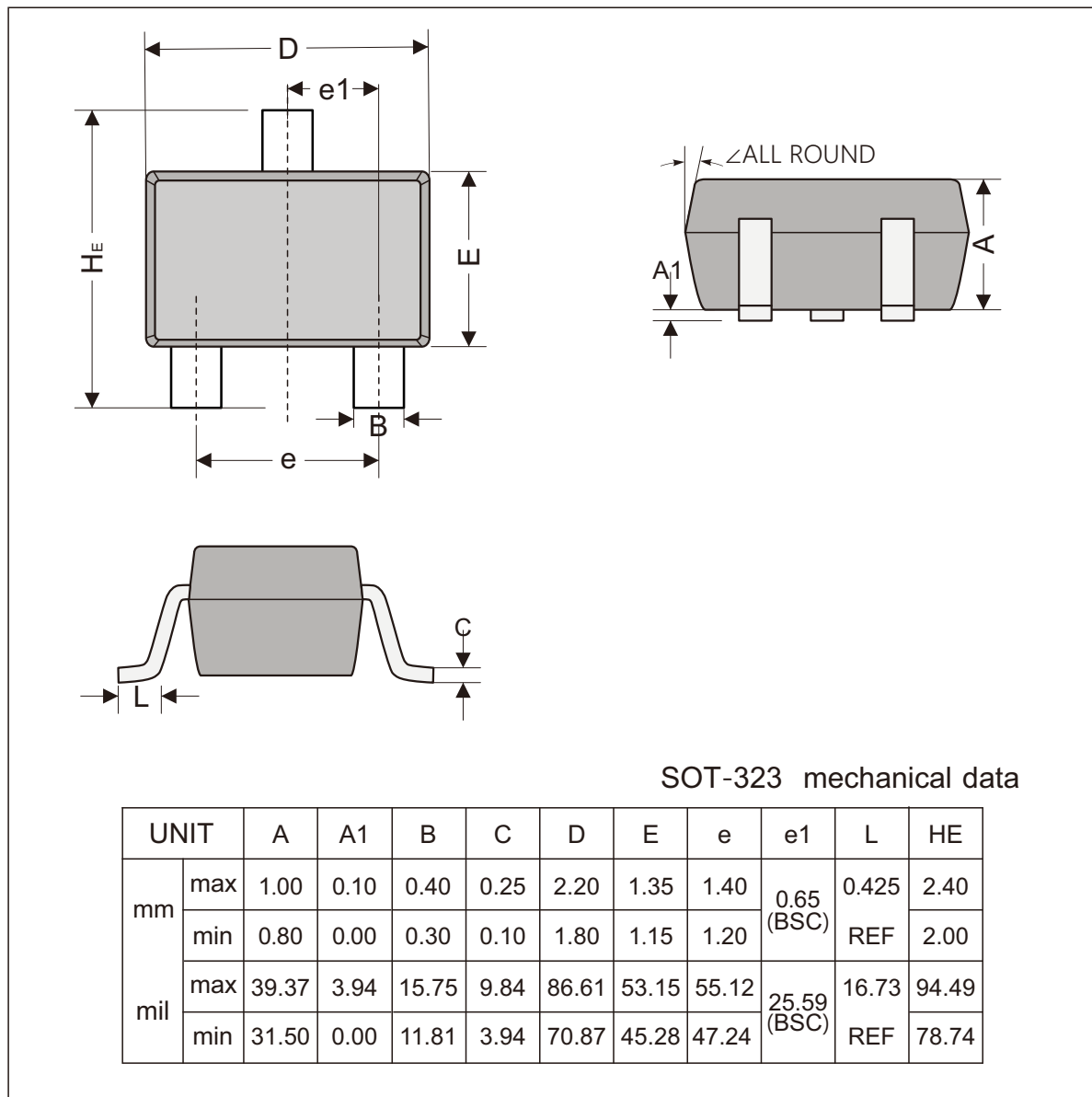


Typical Performance Characteristics

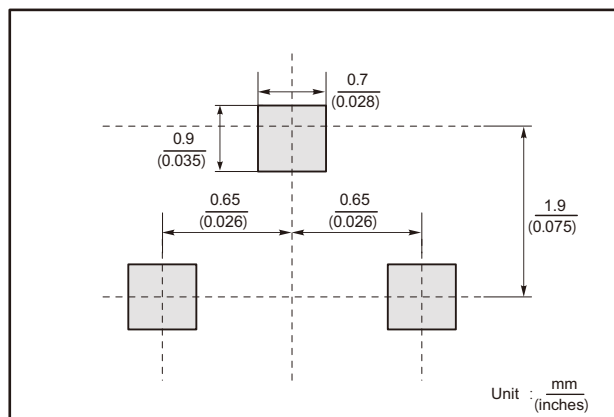




SOT-323 Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
MMBT3906WG	2A



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