

GPB2907 Transistor(PNP)

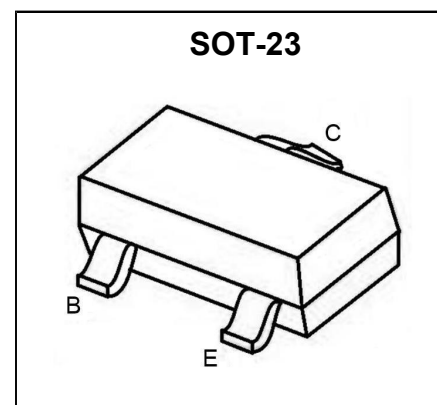
Feature

- Epitaxial Planar Die Construction

Marking: 2F

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-0.6	A
Power Dissipation	P_d	0.25	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Operating Temperature	T_{OP}	-40~125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

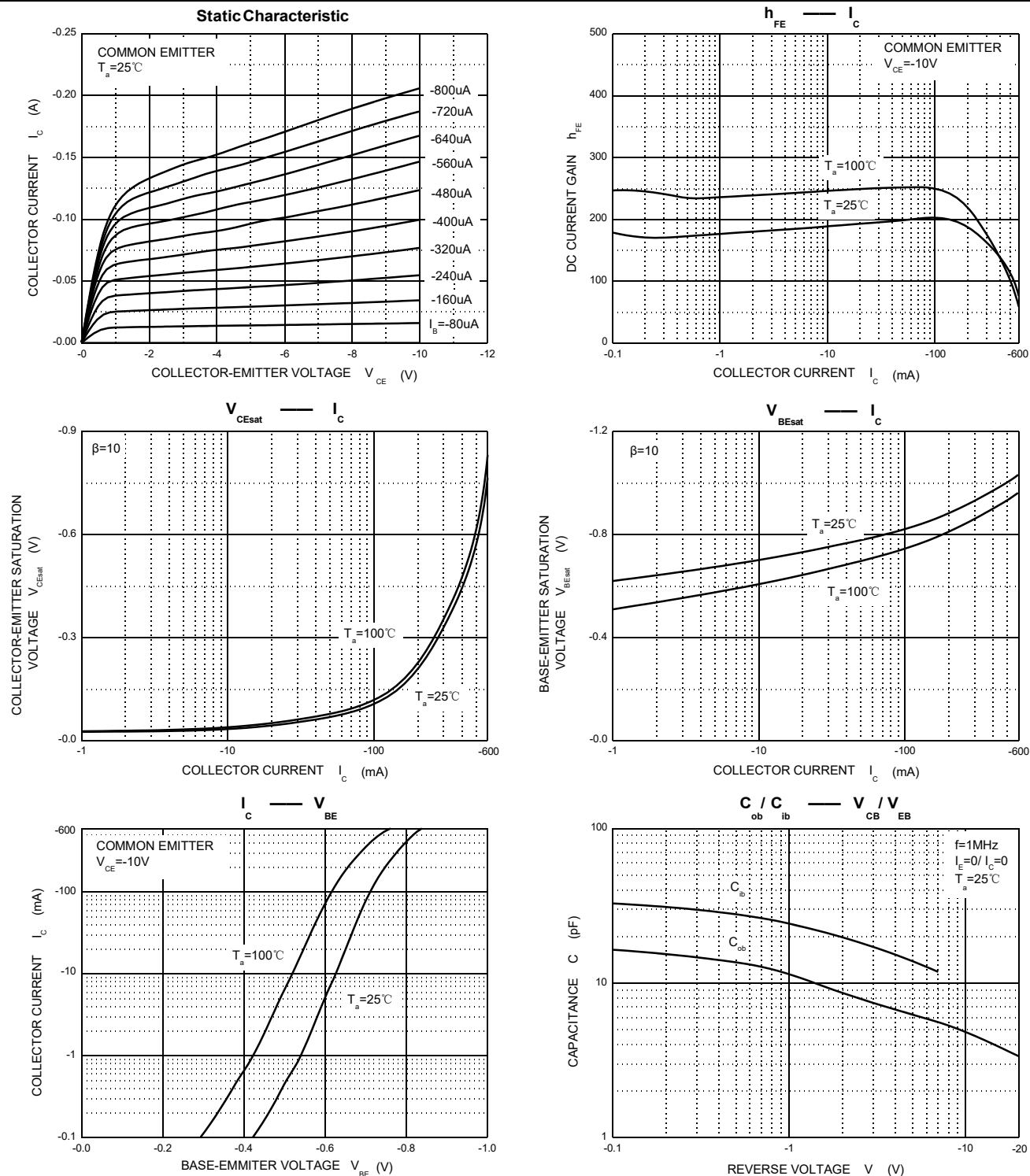


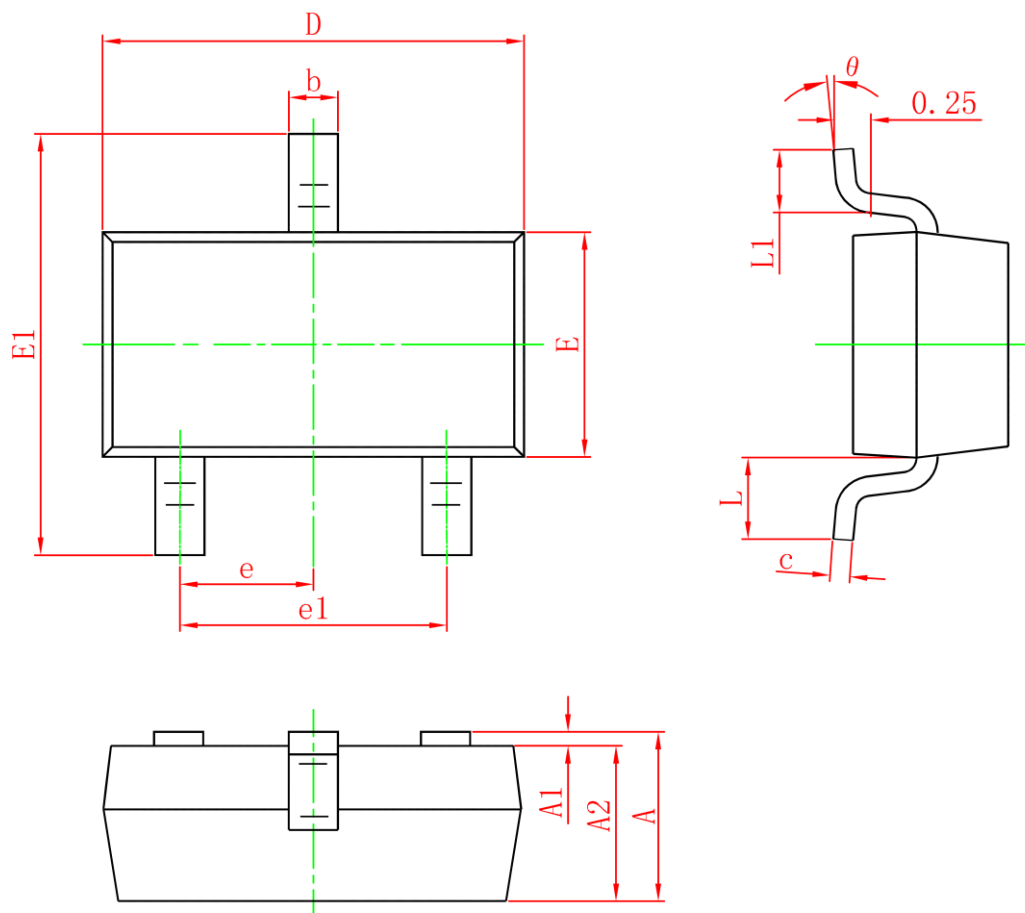
ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-60		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}^*$	$I_C=-10\text{mA}, I_B=0$	-60		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5		V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-50\text{V}, I_E=0$		-20	nA
Collector Cut-Off Current	I_{CEX}	$V_{CE}=-30\text{V}, V_{BE(off)}=-0.5\text{V}$		-50	nA
Base Cut-Off Current	I_{EBO}	$V_{EB}=-3\text{V}, I_C=0$		-10	nA
DC Current Gain	h_{FE}	$V_{CE}=-10\text{V}, I_C=-150\text{mA}$	100	300	
		$V_{CE}=-10\text{V}, I_C=-0.1\text{mA}$	75		
		$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	100		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-1.6	V
		$I_C=-150\text{mA}, I_B=-15\text{mA}$		-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-2.6	V
		$I_C=-150\text{mA}, I_B=-15\text{mA}$		-1.3	V
Transition Frequency	f_T	$V_{CE}=-20\text{V}, I_C=-50\text{mA}, f=100\text{MHz}$	200		MHZ
Delay Time	t_d	$V_{CE}=-30\text{V}, I_C=-150\text{mA}, I_{B1}=-15\text{mA}$		10	ns
Rise Time	t_r			25	ns
Storage Time	t_s	$V_{CE}=-6\text{V}, I_C=-150\text{mA},$		225	ns
Fall Time	t_f	$I_{B1}=-I_{B2}=-15\text{mA}$		60	ns

*Pulse test: $t_p \leq 300\mu\text{s}, \delta \leq 0.02$

Typical Characteristics



SOT-23 Package Information


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0	0.100	0	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.150	1.500	0.045	0.059
E1	2.250	2.650	0.089	0.104
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Attention:

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