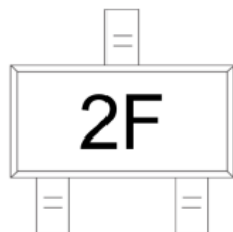


MMBT2907AT Transistor(PNP)

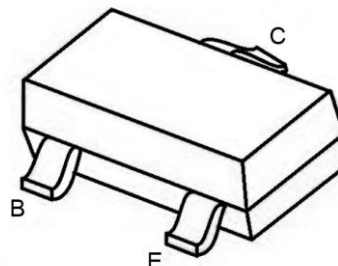
Feature

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMBT2222AT)
- Ideal for Medium Power Amplification and Switching

Marking:



SOT-523



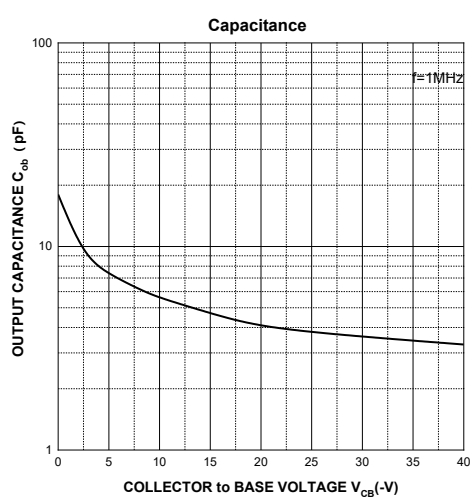
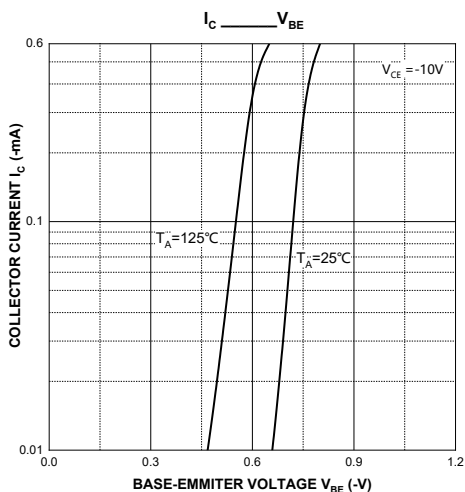
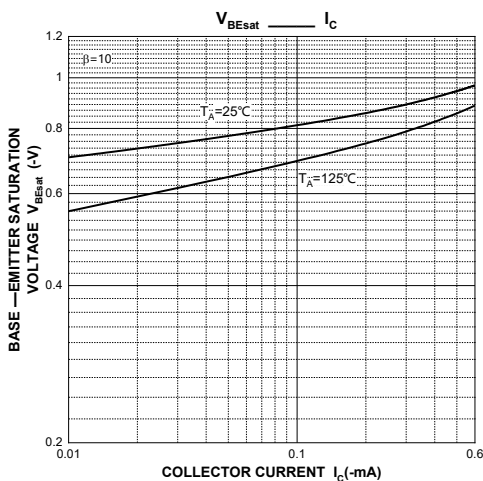
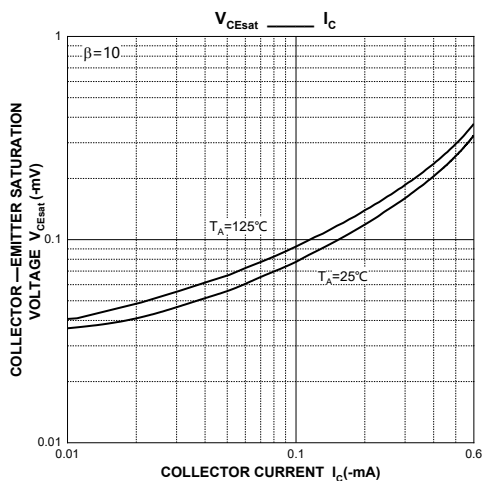
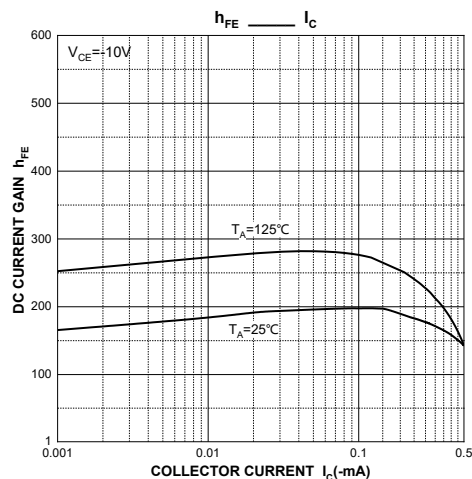
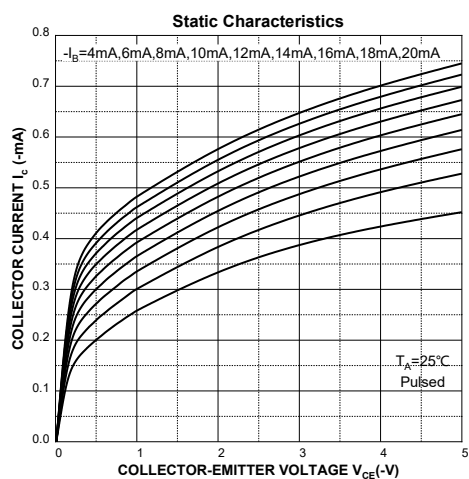
MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

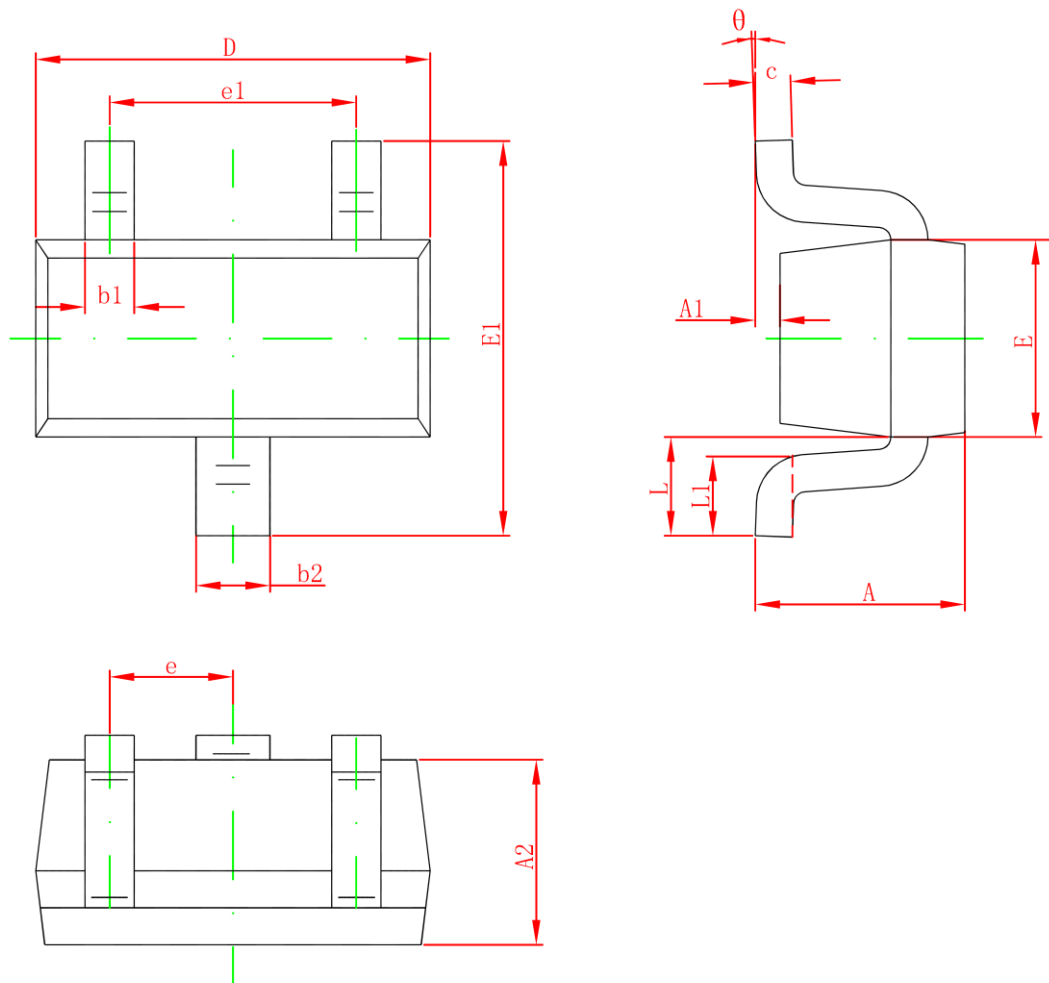
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.6	A
Power Dissipation	P_d	0.2	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$

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	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-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}	$V_{CB} = -50\text{V}, I_E = 0$		-100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -3\text{V}, I_C = 0$		-100	nA
Collector Cut-Off Current	I_{CES}	$V_{CE} = -30\text{V}$		-100	nA
Dc Current Gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$	75		
		$V_{CE} = -10\text{V}, I_C = -1\text{mA}$	100		
		$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	100	300	
		$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	100		
		$V_{CE} = -10\text{V}, I_C = -500\text{mA}$	50		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$		-0.4	V
		$I_C = -500\text{mA}, I_B = -50\text{mA}$		-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -150\text{mA}, I_B = -15\text{mA}$		-1.3	V
		$I_C = -500\text{mA}, I_B = -50\text{mA}$		-2.6	V
Transition Frequency	f_T	$V_{CE} = -20\text{V}, I_E = -50\text{mA},$ $f = 100\text{MHz}$	200		MHZ
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		8	pF
Turn-On Time	t_{on}	$V_{CC} = -30\text{V}, V_{BE(OFF)} = -1.5\text{V},$ $I_C = -150\text{mA}, I_{B1} = -15\text{mA}$		50	ns
Delay Time	t_d			10	ns
Rise Time	t_r			40	ns
Turn-Off Time	t_{off}	$V_{CC} = -30\text{V}, I_C = -150\text{mA},$ $I_{B1} = I_{B2} = -15\text{mA}$		100	ns
Storage Time	t_{stg}			80	ns
Fall Time	t_f			30	ns

Typical Characteristics



SOT-523 Package Information


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e1	0.900	1.100	0.035	0.043
e	0.500TYP		0.020TYP	
L	0.400REF		0.016REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Attention:

- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
- GreenPower Electronics products belong to consumer electronics or other civilian electronic products.