



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

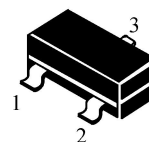
MMBT2907AW

SOT-323 Bipolar Transistor 双极型三极管

■ Features 特点

PNP Switching 开关

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	-60	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-60	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-600	mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}C)$	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}C$	

■ Device Marking 产品打标

MMBT2907AW=K3F

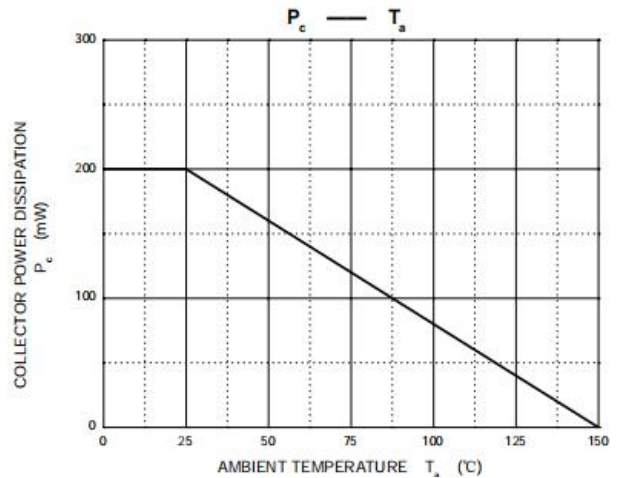
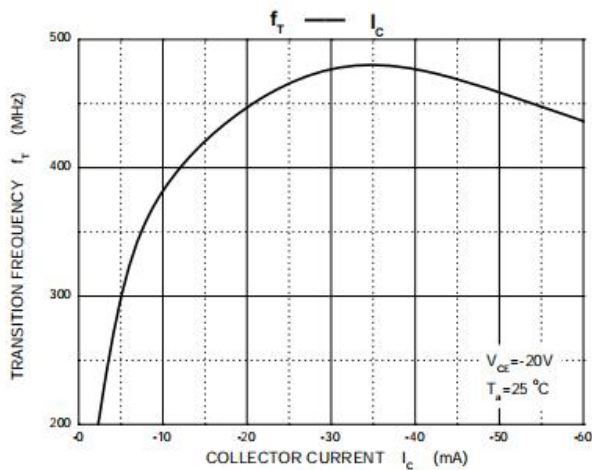
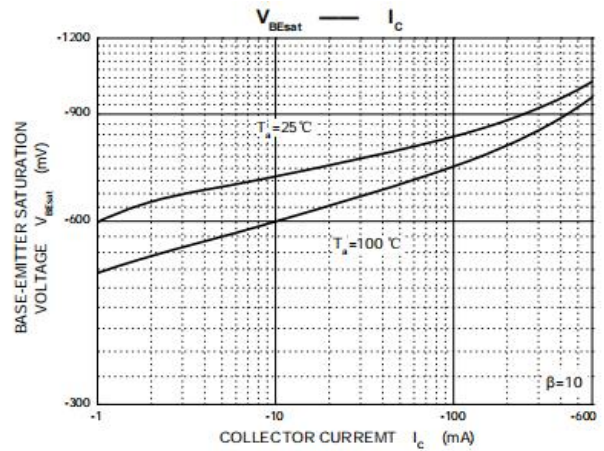
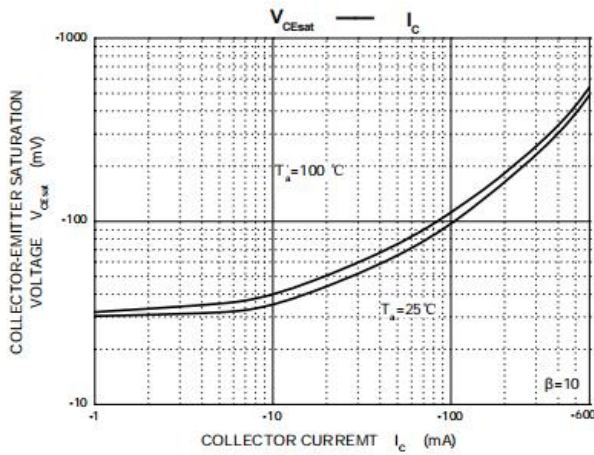
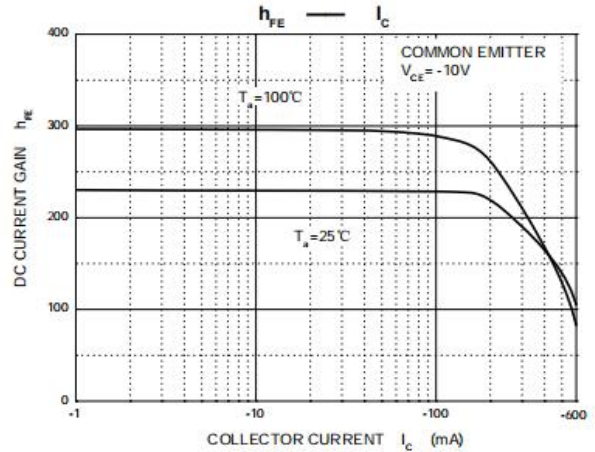
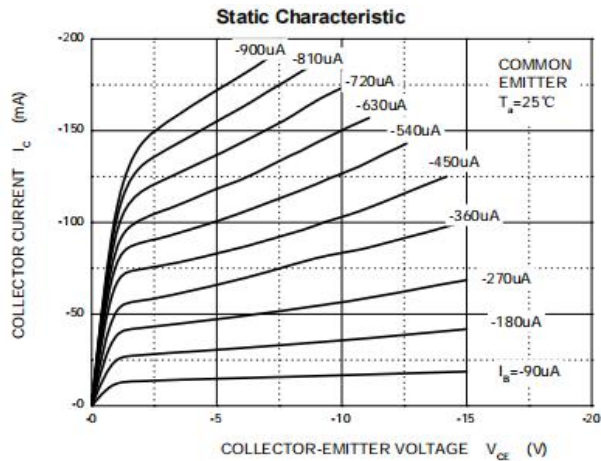


■ Electrical Characteristics 电特性

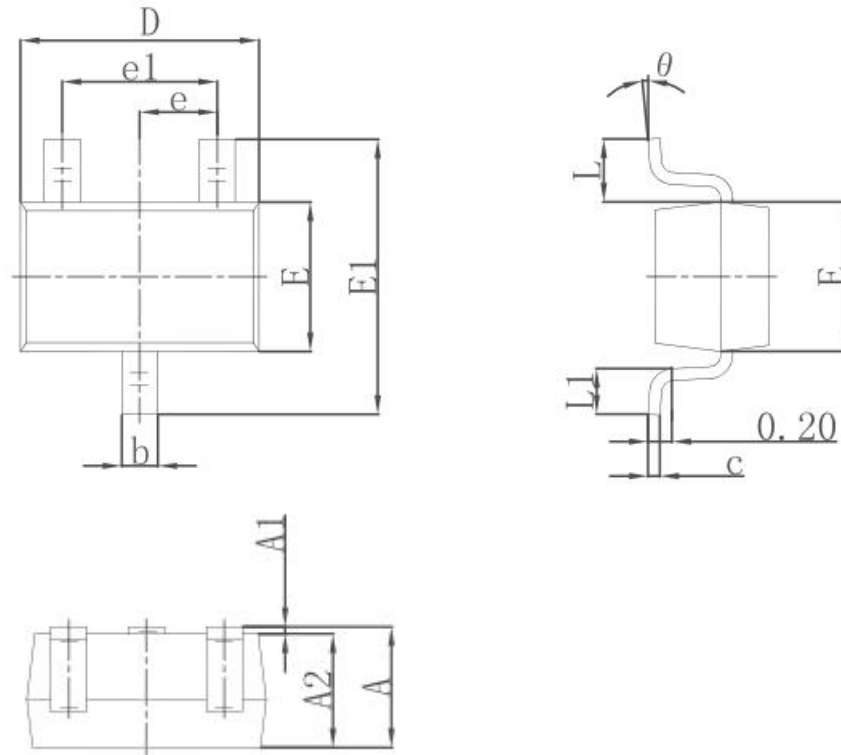
(TA=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I _C = -0.1mA, I _E =0)	BV _{CBO}	-60	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I _C = -10mA, I _B =0)	BV _{CEO}	-60	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I _E = -0.1mA, I _C =0)	BV _{EBO}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V _{CB} = -50V, I _E =0)	I _{CBO}	—	—	-100	nA
Collector-Emitter Leakage Current 集电极发射极漏电流(V _{CE} = -35V, V _{BE} = 0.5V)	I _{CEX}	—	—	-100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V _{EB} = -4V, I _C =0)	I _{EBO}	—	—	-100	nA
DC Current Gain(V _{CE} = -10V, I _C = -0.1mA) 直流电流增益(V _{CE} = -10V, I _C = -150mA) (V _{CE} = -10V, I _C = -500mA)	H _{FE}	75 100 50	—	300	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I _C = -500mA, I _B = -50mA) (I _C = -150mA, I _B = -15mA)	V _{CE(sat)}	—	—	-0.6 -0.4	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I _C = -500mA, I _B = -50mA) (I _C = -150mA, I _B = -15mA)	V _{BE(sat)}	—	—	-2.6 -1.3	V
Transition Frequency 特征频率(V _{CE} = -20V, I _C = -20mA)	f _T	200	—	—	MHz
Delay Time 延迟时间 (V _{CC} = -30V, V _{BE} =0.5V, I _C = -150mA, I _{B1} = -15mA)	t _d	—	—	10	ns
Rise Time 上升时间 (V _{CC} = -30V, V _{BE} =0.5V, I _C = -150mA, I _{B1} = -15mA)	t _r	—	—	25	ns
Storage Time 贮存时间 (V _{CC} = -30V, V _{BE} =0.5V, I _C = -150mA, I _{B1} = -15mA)	t _s	—	—	225	ns
Fall Time 下降时间 (V _{CC} = -30V, V _{BE} =0.5V, I _C = -150mA, I _{B1} = -15mA)	t _f	—	—	60	ns

Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°