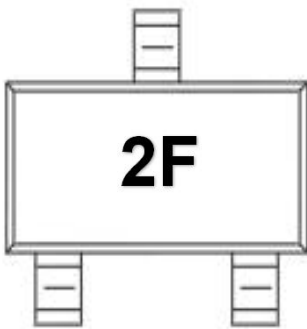


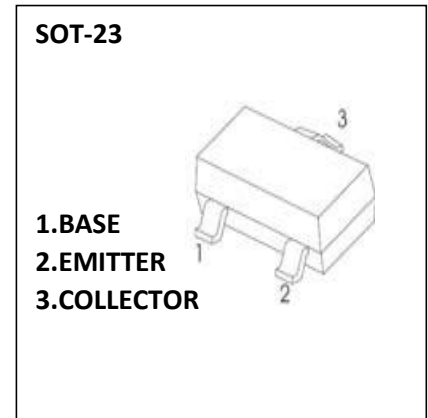
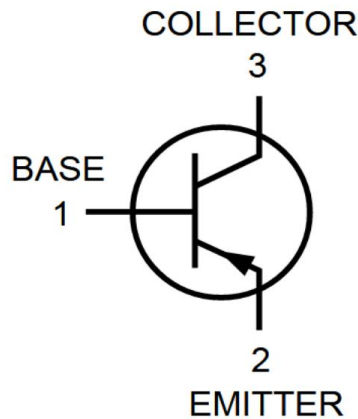
## SOT-23 Plastic-Encapsulate MOSFETS

### MMBT2907A TRANSISTOR (PNP)

**MARKING:**



**Equivalent Circuit:**



**FEATURES:**

- ※ Complementary NPN Type available MMBT2222A
- ※ Collector Current:  $I_c=0.6A$
- ※ Epitaxial Planar die construction

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	-60	V
Collector-Emitter Voltage	VCEO	-60	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current	IC	-600	mA
Collector Power Dissipation	PC	250	mW
Thermal Resistance From Junction To Ambient	RθJA	417	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

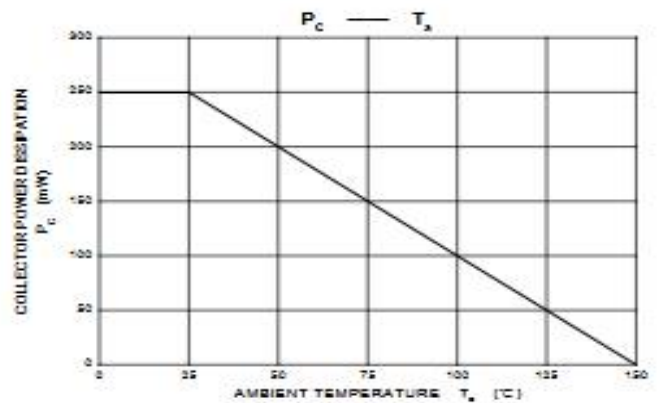
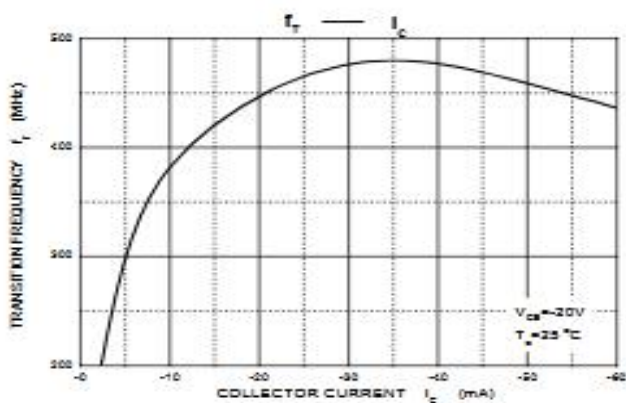
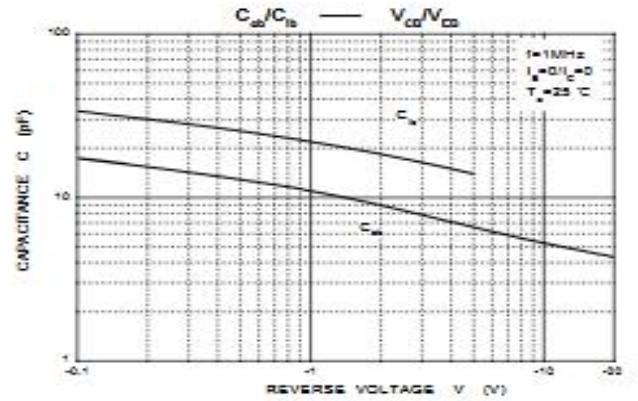
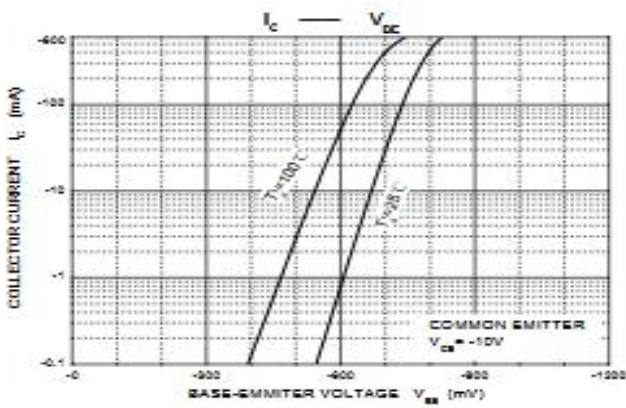
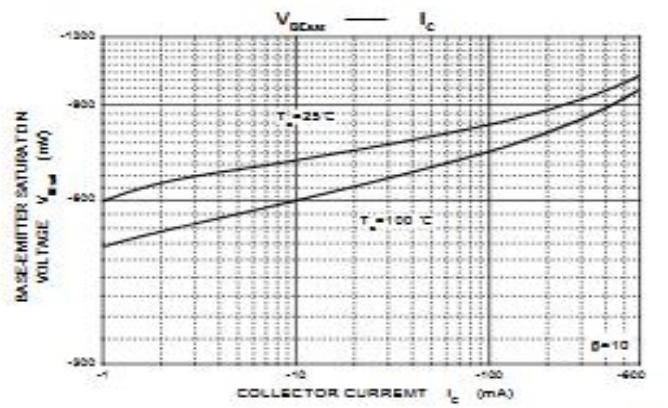
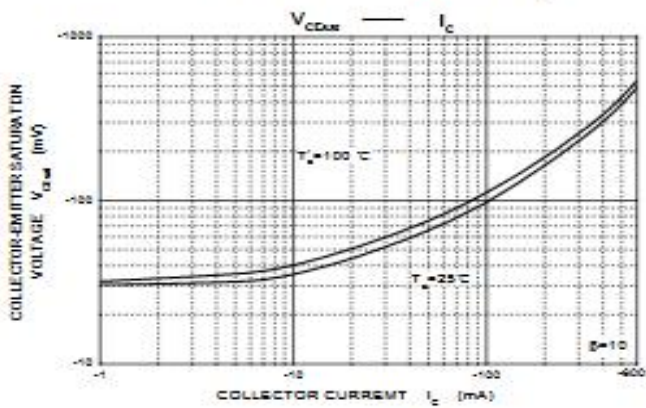
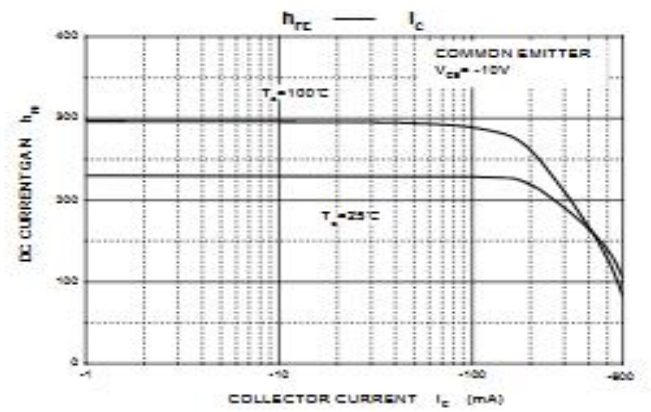
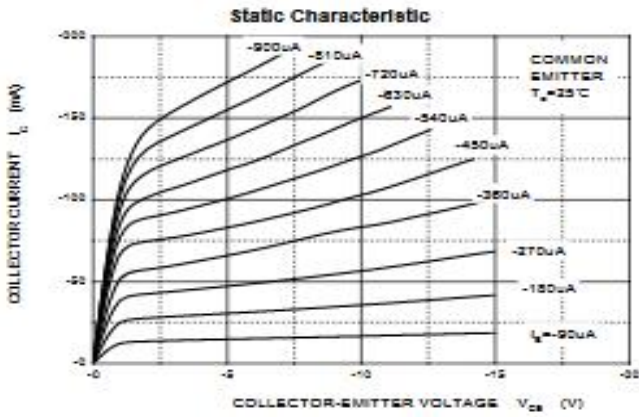
**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC= 10μA, IE=0	-60			<b>V</b>
Collector-emitter breakdown voltage	V(BR)CEO	IC= 10mA, IB=0	-60			<b>V</b>
Emitter-base breakdown voltage	V(BR)EBO	IE=10μA, IC=0	-5			<b>V</b>
Collector cut-off current	ICBO	VCB=-50 V , IE=0			-20	<b>nA</b>
Collector cut-off current	ICEX	VCE=-30V , VBE(Off)=-0.5V			-10	<b>nA</b>
Base cut-off current	IEBO	VEB= -3V , IC=0			-50	<b>nA</b>
DC current gain	hFE	VCE=-10V, IC= -150mA	100		300	
	hFE	VCE=-10V, IC= -0.1mA	75			
Collector-emitter saturation voltage	VCE(sat)	IC=-150 mA, IB= -15mA			-0.4	<b>V</b>
		IC=-500 mA, IB= -50mA			-1.6	<b>V</b>
Base-emitter saturation voltage	VBE(sat)	IC=-150 mA, IB= -15mA			-1.3	<b>V</b>
		IC=-500 mA, IB= -50mA			-2.6	<b>V</b>
Transition frequency	fT	VCE=-20V, IC= -50mA f=100MHz	200			<b>MHz</b>
Delay time	td	VCE=-30V, Ic=-150mA, IB1=-15mA,			10	<b>ns</b>
Rise time	tr				25	<b>ns</b>
Storage time	ts	VCE=-6V, Ic=-150mA, IB1=-15mA,			225	<b>ns</b>
Fall time	tf				60	<b>ns</b>

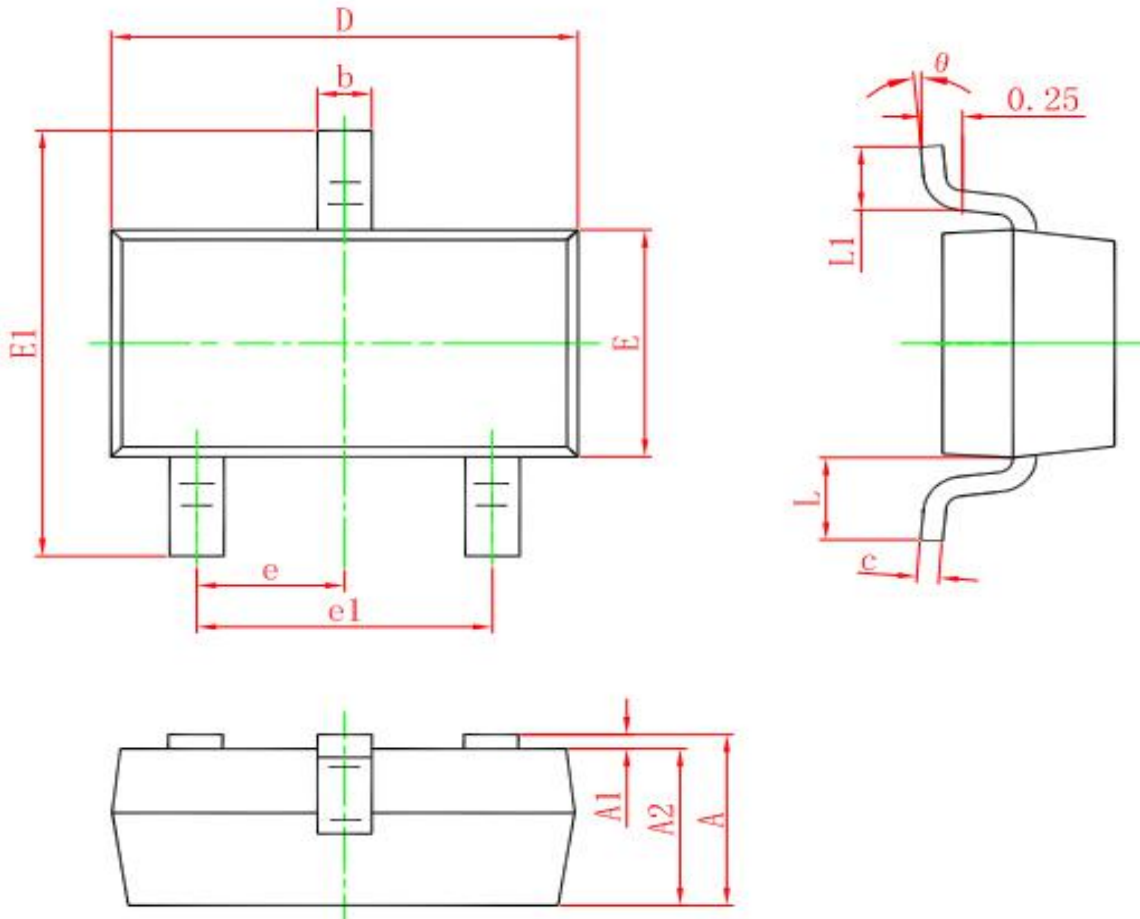
**CLASSIFICATION OF hFE**

Rank	L	H	J
Range	120-200	200-350	300-400

## TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS



### SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	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	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
$\theta$	0°	8°	0°	8°