

**FEATURES**

Epitaxial planar die construction

Complementary NPN Type available(MMBT2222A)

Marking:2F

**MMBT2907A (PNP)**

MAXIMUM RATINGS (TA=25°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	$I_C$	-600	mA
Collector Power Dissipation	$P_C$	250	mW
Thermal Resistance Junction to Ambient	$R_{JA}$	500	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CBO}$	$I_C=-10\mu A, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{CEO}^*$	$I_C=-10mA, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-50V, I_E=0$			-20	nA
Base cut-off current	$I_{EBO}$	$V_{CE}=-3V, I_C=0$			-10	nA
Collector cut-off current	$I_{CEX}$	$V_{CE}=-30V, V_{BE(off)}=-0.5V$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10V, I_C=-150mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-10V, I_C=-0.1mA$	75			
	$h_{FE(3)}$	$V_{CE}=-10V, I_C=-1mA$	100			
	$h_{FE(4)}$	$V_{CE}=-10V, I_C=-10mA$	100			
	$h_{FE(5)}$	$V_{CE}=-10V, I_C=-500mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-150mA, I_B=-15mA$			-0.4	V
	$V_{CE(sat)}^*$	$I_C=-500mA, I_B=-50mA$			-1.6	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-150mA, I_B=-15mA$			-1.3	V
	$V_{BE(sat)}^*$	$I_C=-500mA, I_B=-50mA$			-2.6	V
Transition frequency	$f_T$	$V_{CE}=-20V, I_C=-50mA, f=100MHz$	200			MHz
Delay time	$t_d$	$V_{CE}=-30V, I_C=-150mA, I_{B1}=-15mA$			10	nS
Rise time	$t_r$				25	nS
Storage time	$t_s$	$V_{CE}=-6V, I_C=-150mA, I_{B1}=-I_{B2}=-15mA$			225	nS
Fall time	$t_f$				60	nS

 \*Pulse test:  $t_p$  300 $\mu$ S, 0.02.

MMBT2907A Typical Characteristics

