

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 μ S, 0.02.

MMBT2907A Typical Characteristics

