



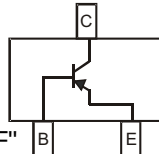
MMBT2907A

PNP General Purpose Amplifier

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Capable of 350mWatts of Pd, 600mA continuous collector current.
- Operating and Storage Junction Temperatures: -55°C to 150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking : 2F
- Thermal Tesistance,Junction to Ambient:500°C/W
- Halogen free available upon request by adding suffix "-HF"

Pin Configuration
Top View



Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C = -10\text{mA}$, $I_B = 0$)	-60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C = -10\mu\text{A}$, $I_E = 0$)	-60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E = -10\mu\text{A}$, $I_C = 0$)	-5.0		Vdc
I_{BL}	Base Cutoff Current ($V_{CE} = -30\text{Vdc}$, $V_{BE} = -0.5\text{Vdc}$)		-50	nAdc
I_{CEX}	Collector Cutoff Current ($V_{CE} = -30\text{Vdc}$, $V_{BE} = -0.5\text{Vdc}$)		-50	nAdc
I_{CBO}	Collector Cutoff Current ($V_{CB} = -50\text{Vdc}$, $I_E = 0$) ($V_{CB} = -50\text{Vdc}$, $I_E = 0$, $T_A = 150^\circ\text{C}$)		-0.1 -10.0	μAdc

ON CHARACTERISTICS

h_{FE}	DC Current Gain* ($I_C = -0.1\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -1.0\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -10\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -150\text{mA}$, $V_{CE} = -10\text{Vdc}$) ($I_C = -500\text{mA}$, $V_{CE} = -10\text{Vdc}$)	75 100 100 100 50	300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C = -150\text{mA}$, $I_B = -15\text{mA}$) ($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)		-0.4 -1.6	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C = -150\text{mA}$, $I_B = -15\text{mA}$) ($I_C = -500\text{mA}$, $I_B = -50\text{mA}$)		-1.3 -2.6	Vdc

SMALL-SIGNAL CHARACTERISTICS

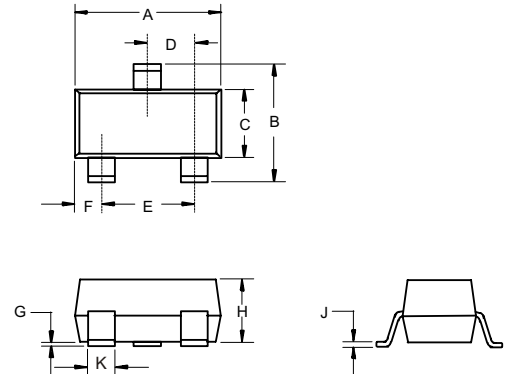
f_T	Current Gain-Bandwidth Product ($I_C = -50\text{mA}$, $V_{CE} = -20\text{Vdc}$, $f = 100\text{MHz}$)	200		MHz
C_{cbo}	Output Capacitance ($V_{CB} = -10\text{Vdc}$, $I_E = 0$, $f = 1.0\text{MHz}$)		8.0	pF
C_{ibo}	Input Capacitance ($V_{EB} = -2.0\text{Vdc}$, $I_C = 0$, $f = 1.0\text{MHz}$)		30.0	pF

SWITCHING CHARACTERISTICS

t_d	Delay Time	($V_{CC} = -3.0\text{Vdc}$, $I_C = -150\text{mA}$)	10	ns
t_r	Rise Time	($I_{B1} = -15\text{mA}$)	40	ns
t_s	Storage Time	($V_{CC} = -3.0\text{Vdc}$, $I_C = -150\text{mA}$)	80	ns
t_f	Fall Time	($I_{B1} = I_{B2} = -15\text{mA}$)	30	ns

*Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$

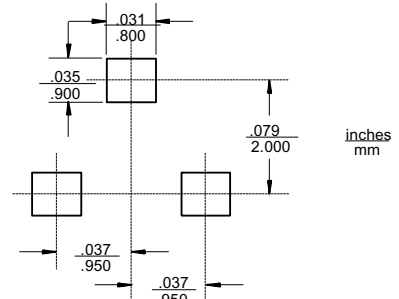
SOT-23



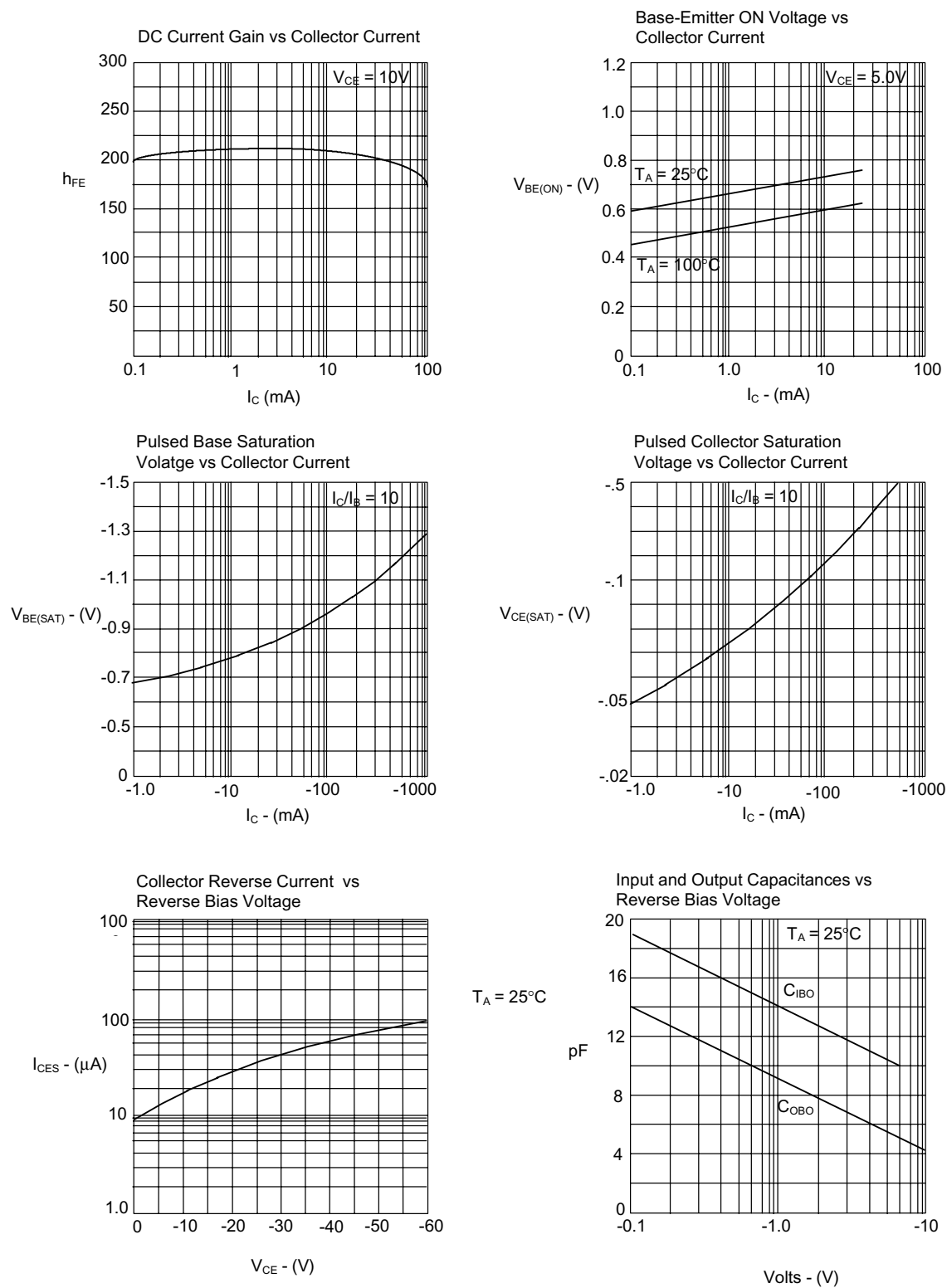
DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

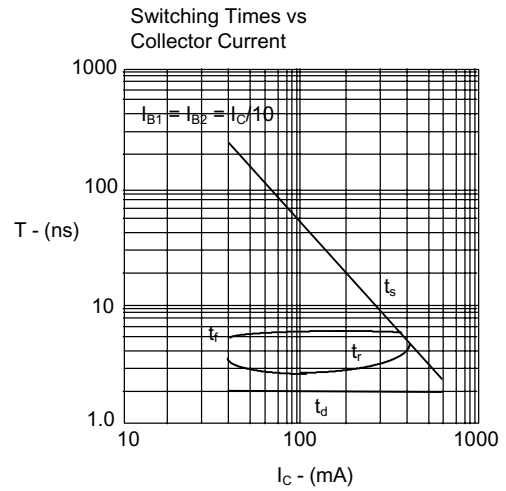
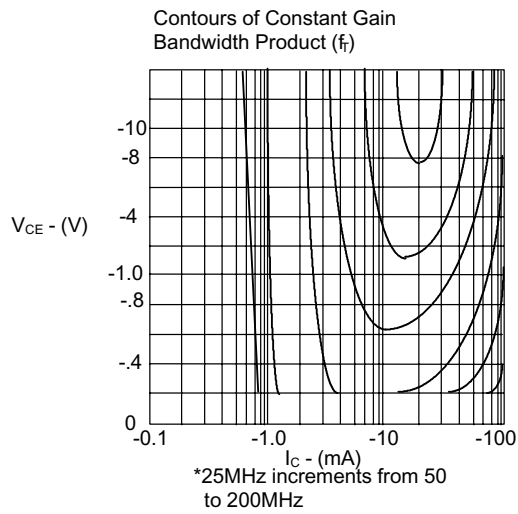
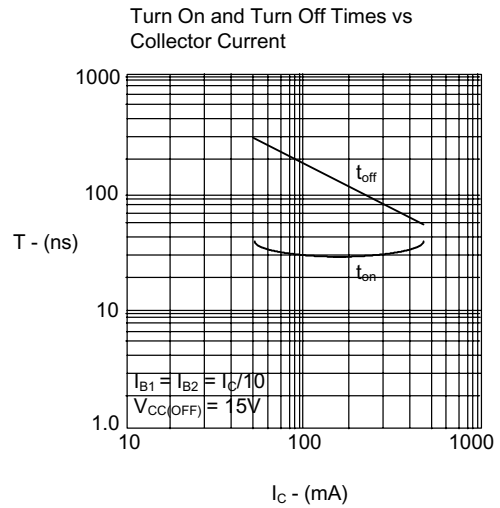
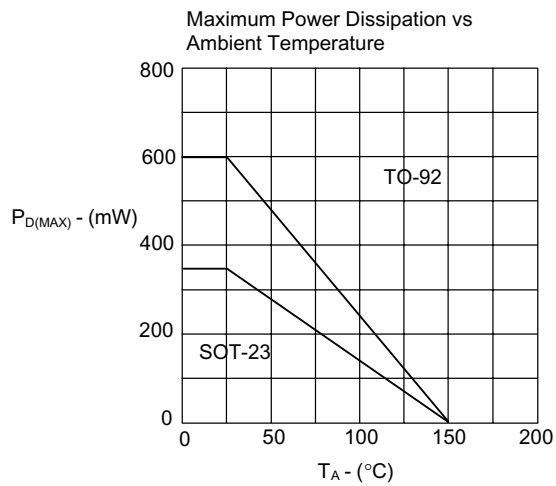
Suggested Solder Pad Layout



MMBT2907A



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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