



Micro Commercial Components



Micro Commercial Components
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MMBT2907AT

PNP General Purpose Amplifier

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Capable of 150mWatts of Power Dissipation
- Operating and Storage Junction Temperatures -55°C to 150°C
- Collector Current: -0.6A
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:2F
- Halogen free available upon request by adding suffix "-HF"

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_{CBO}	Collector Cut-off Current ($V_{CB} = -50\text{Vdc}$, $I_E = 0$)		-10	nAdc
I_{EBO}	Emitter Cut-off Current ($V_{EB} = -4\text{Vdc}$, $I_C = 0$)		-10	nAdc

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

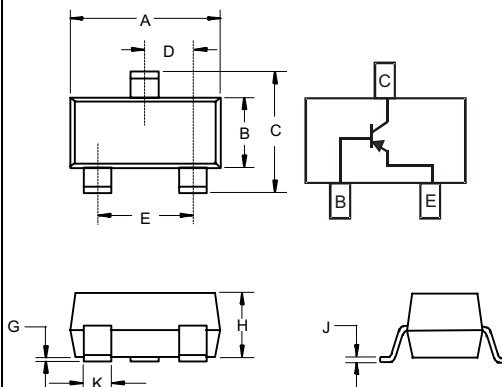
SMALL-SIGNAL CHARACTERISTICS

f_T	Current Gain-Bandwidth Product ($I_C = -2\text{mA}$, $V_{CE} = -12\text{Vdc}$, $f = 30\text{MHz}$)	140(Typ.)		MHz
C_{cbo}	Output Capacitance ($V_{CB} = -12\text{Vdc}$, $I_E = 0$, $f = 100\text{kHz}$)		5.0	pF

SWITCHING CHARACTERISTICS

T_{on}	Turn-on Time	$(V_{CC} = -30\text{Vdc}, I_C = -150\text{mA}, I_{B1} = -15\text{mA})$	45	ns
t_d	Delay Time		10	ns
t_r	Rise Time		40	ns
t_{off}	Turn-off Time	$(V_{CC} = -6\text{Vdc}, I_C = -150\text{mA}, I_{B1} = I_{B2} = -15\text{mA})$	100	ns
t_s	Storage Time		80	ns
t_f	Fall Time		30	ns

SOT-523



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.059	.067	1.50	1.70	
B	.030	.033	0.75	0.85	
C	.057	.069	1.45	1.75	
D	.020 Nominal		0.50 Nominal		
E	.035	.043	0.90	1.10	
G	.000	.004	.000	.100	
H	.028	.031	.70	0.80	
J	.004	.008	.100	.200	
K	.010	.014	.25	.35	

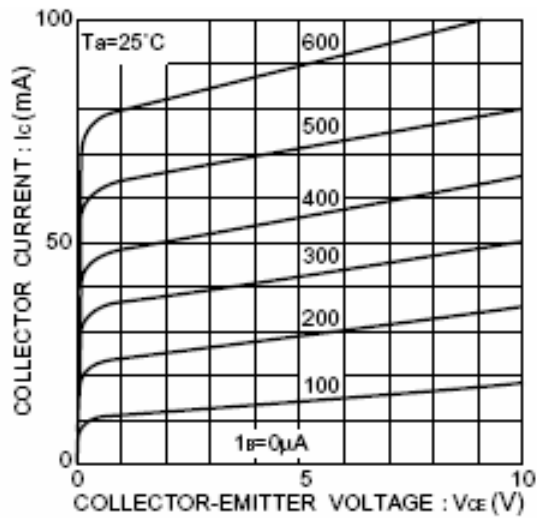


Fig.1 Grounded emitter output characteristics

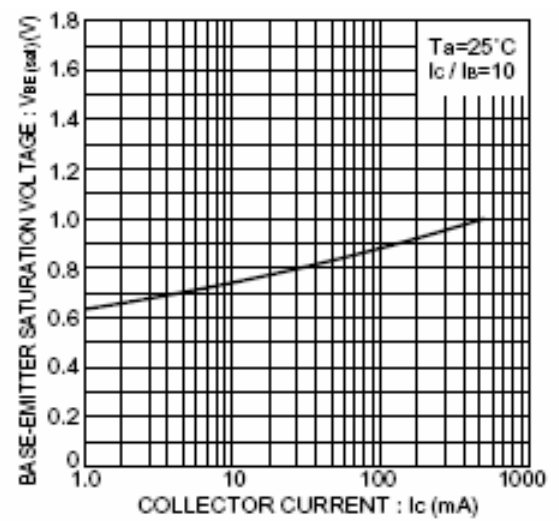


Fig.2 Base-emitter saturation voltage vs. collector current

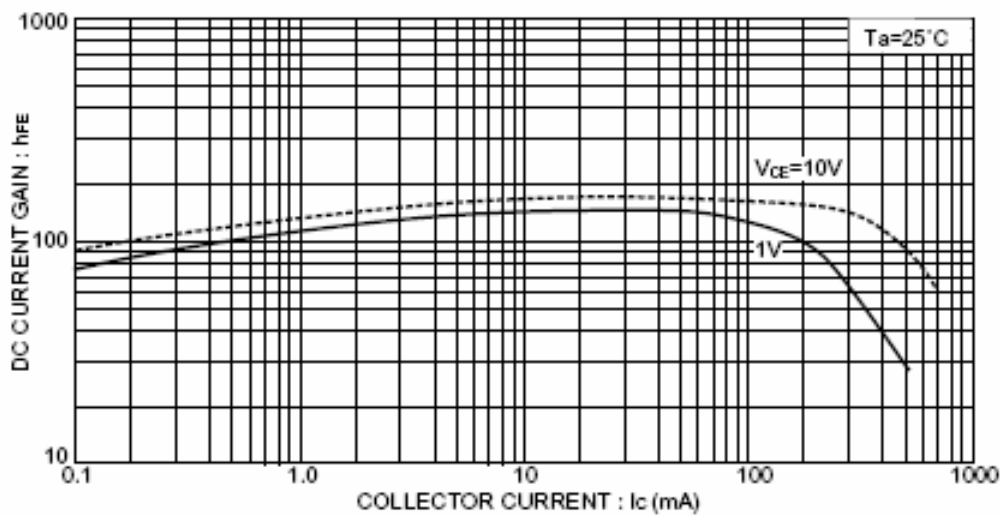


Fig.3 DC current gain vs. collector current (I)

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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