



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

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage* ($I_C=-10\text{mAdc}$, $I_B=0$)	-60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-10\mu\text{Adc}$, $I_E=0$)	-60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=-10\mu\text{Adc}$, $I_C=0$)	-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*			
	($I_C=-0.1\text{mAdc}$, $V_{CE}=-10\text{Vdc}$)	75		
	($I_C=-1.0\text{mAdc}$, $V_{CE}=-10\text{Vdc}$)	100	300	
	($I_C=-10\text{mAdc}$, $V_{CE}=-10\text{Vdc}$)	100		
	($I_C=-150\text{mAdc}$, $V_{CE}=-10\text{Vdc}$)	100		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=-150\text{mAdc}$, $I_B=-15\text{mAdc}$)		-0.4	Vdc
	($I_C=-500\text{mAdc}$, $I_B=-50\text{mAdc}$)		-1.6	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=-150\text{mAdc}$, $I_B=-15\text{mAdc}$)		-1.3	Vdc
	($I_C=-500\text{mAdc}$, $I_B=-50\text{mAdc}$)		-2.6	

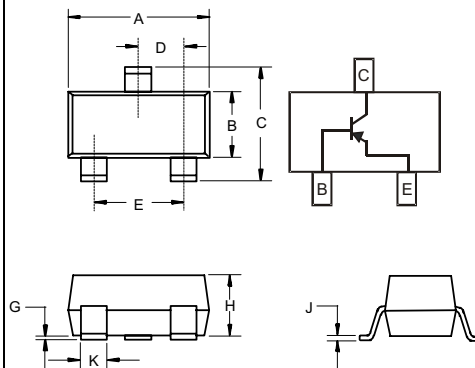
SMALL-SIGNAL CHARACTERISTICS

f_T	Current Gain-Bandwidth Product ($I_C=-2\text{mAdc}$, $V_{CE}=-12\text{Vdc}$, $f=30\text{MHz}$)		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} =-30Vdc, I _C =-150mAdc, I _{B1} =-15mAdc)	45	ns
t_d	Delay Time		10	ns
t_r	Rise Time		40	ns
t_{off}	Turn-off Time	(V _{CC} =-6Vdc, I _C =-150mAdc, I _{B1} =I _{B2} =-15mAdc)	100	ns
t_s	Storage Time		80	ns
t_f	Fall Time		30	ns

SOT-523



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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		0.50Nominal		
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	

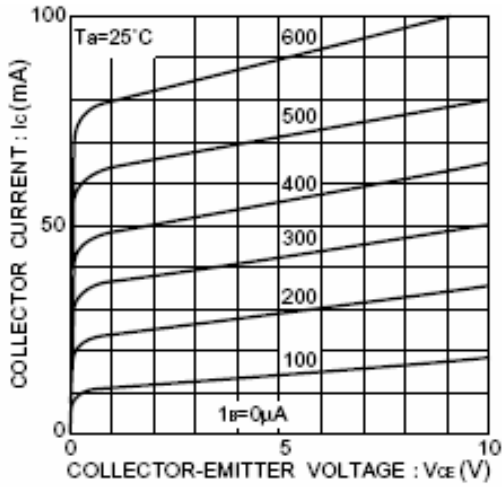


Fig.1 Grounded emitter output characteristics

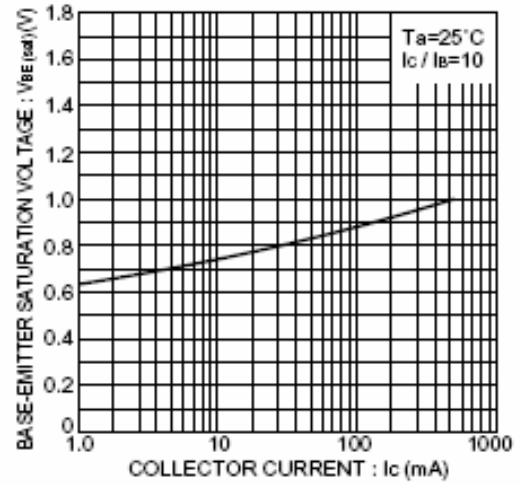


Fig.2 Base-emitter saturation voltage vs. collector current

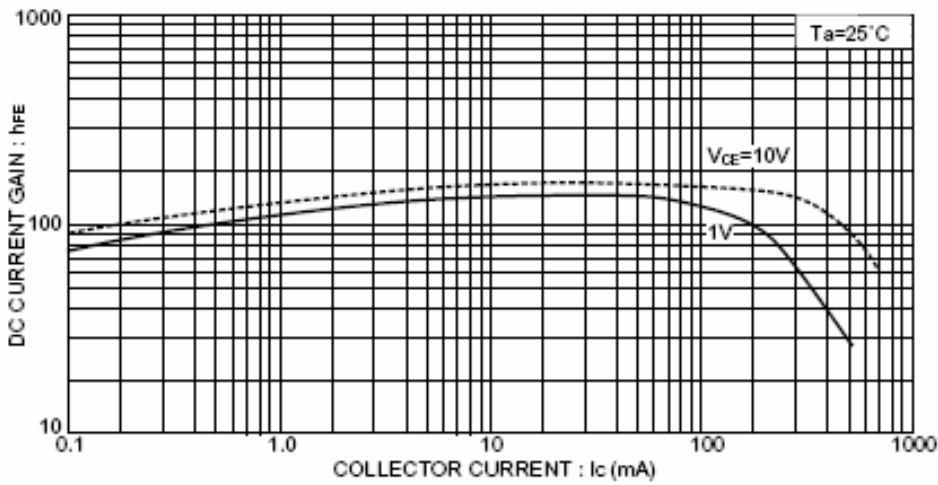


Fig.3 DC current gain vs. collector current (I)



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Ordering Information :

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

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