Micro Commercial Components

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MMBT2907AT

PNP General Purpose Amplifier

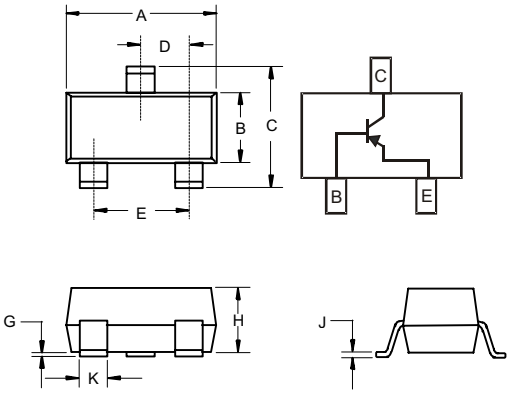
Features

- 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℃ to 150℃
- Collector Current: -0.6A
- Epoxy meets UL 94 V-0 flammability rating
- Moisure 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=-10mAdc, I_B=0)	-60		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I_C=-10μAdc, I_E=0)	-60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I_E=-10μAdc, I_C=0)	-5.0		Vdc
I_{CBO}	Collector Cut-off Current (V_{CB}=-50Vdc, I_E=0)		-10	nAdc
I_{EBO}	Emitter Cut-off Current (V_{EB}=-4Vdc, I_C=0)		-10	nAdc
ON CHARACTERISTICS				
h_{FE}	DC Current Gain* (I_C=-0.1mAdc, V_{CE}=-10Vdc) (I_C=-1.0mAdc, V_{CE}=-10Vdc) (I_C=-10mAdc, V_{CE}=-10Vdc) (I_C=-150mAdc, V_{CE}=-10Vdc) (I_C=-500mAdc, V_{CE}=-10Vdc)	75 100 100 100 50	300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage (I_C=-150mAdc, I_B=-15mAdc) (I_C=-500mAdc, I_B=-50mAdc)		-0.4 -1.6	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage (I_C=-150mAdc, I_B=-15mAdc) (I_C=-500mAdc, I_B=-50mAdc)		-1.3 -2.6	Vdc
SMALL-SIGNAL CHARACTERISTICS				
f_T	Current Gain-Bandwidth Product (I_C=-2mAdc, V_{CE}=-12Vdc, f=30MHz)	140(Typ.)		MHz
C_{cbo}	Output Capacitance (V_{CB}=-12Vdc, I_E=0, f=100kHz)		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



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

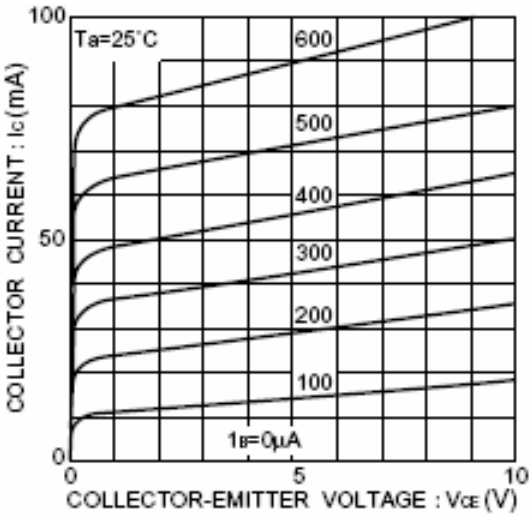


Fig.1 Grounded emitter output characteristics

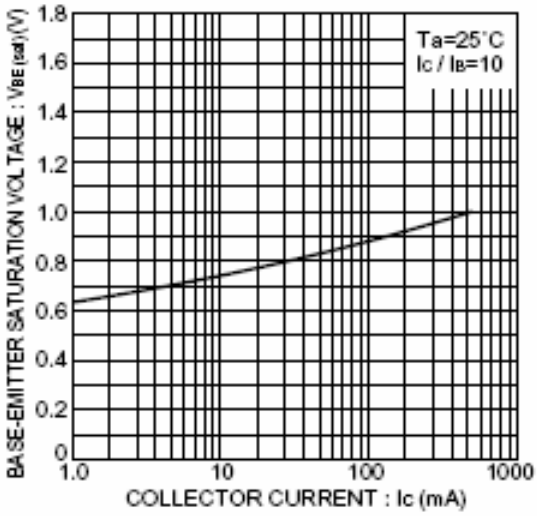


Fig.2 Base-emitter saturation voltage vs. collector current

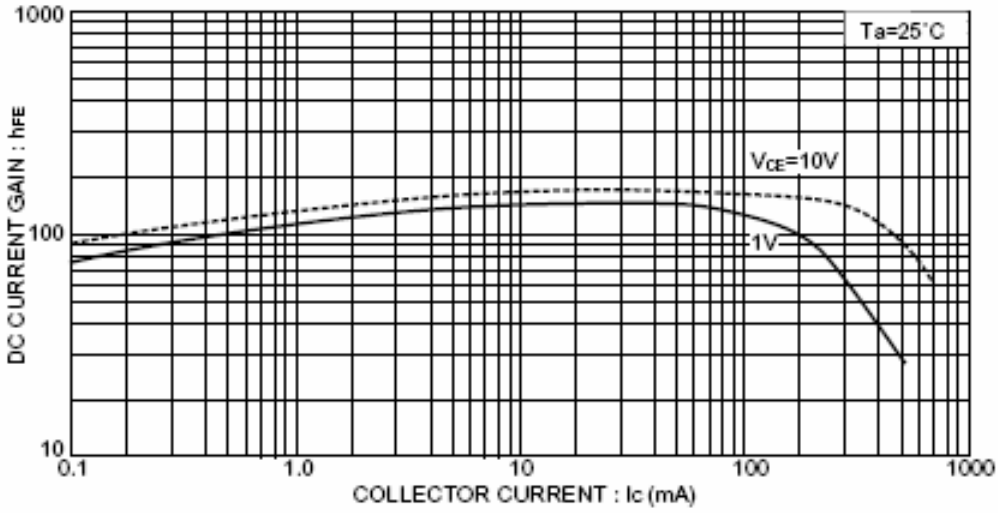


Fig.3 DC current gain vs. collector current (I)

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Ordering Information :

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

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

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