

PXT3904

NPN General Purpose Amplifier

Features

- Halogen free available upon request by adding suffix "-HF"
- Capable of 500mWatts of Power Dissipation and 200mA I_C .
- Operating and Storage Junction Temperatures: -55°C to 150°C
- Compliment to PXT3906
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: 1A

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* ($I_C=1.0mA$, $I_B=0$)	40		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=10\mu A$, $I_E=0$)	60		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=10\mu A$, $I_C=0$)	6.0		Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=30V$, $I_E=0$)		50	nAdc
I_{EBO}	Cutoff Current ($V_{EB}=6V$, $I_C=0$)		50	nAdc

ON CHARACTERISTICS

h_{FE}	DC Current Gain* ($I_C=0.1mA$, $V_{CE}=1.0V$) ($I_C=1.0mA$, $V_{CE}=1.0V$) ($I_C=10mA$, $V_{CE}=1.0V$) ($I_C=50mA$, $V_{CE}=1.0V$) ($I_C=100mA$, $V_{CE}=1.0V$)	60 80 100 60 30	300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=10mA$, $I_B=1.0mA$) ($I_C=50mA$, $I_B=5.0mA$)		0.2 0.3	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=10mA$, $I_B=1.0mA$) ($I_C=50mA$, $I_B=5.0mA$)	0.65	0.85 0.95	Vdc

SMALL-SIGNAL CHARACTERISTICS

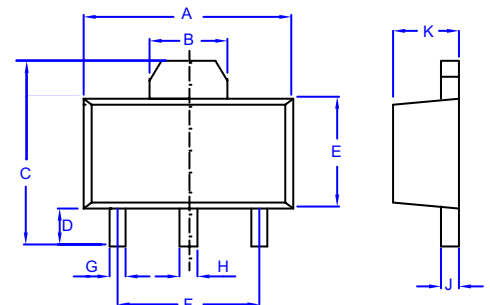
f_T	Current Gain-Bandwidth Product ($I_C=10mA$, $V_{CE}=20V$, $f=100MHz$)	300		MHz
C_{obo}	Output Capacitance ($V_{CB}=5.0V$, $I_E=0$, $f=1.0MHz$)		4.0	pF
C_{ibo}	Input Capacitance ($V_{BE}=0.5V$, $I_C=0$, $f=1.0MHz$)		8.0	pF
NF	Noise Figure ($I_C=100\mu A$, $V_{CE}=5.0V$, $R_S=1.0k\Omega$ $f=10Hz$ to $15.7kHz$)		5.0	dB

SWITCHING CHARACTERISTICS

t_d	Delay Time	($V_{CC}=3.0V$, $V_{BE}=0.5V$)	35	ns
t_r	Rise Time	($I_C=10mA$, $I_{B1}=1.0mA$)	35	ns
t_s	Storage Time	($V_{CC}=3.0V$, $I_C=10mA$)	200	ns
t_f	Fall Time	($I_{B1}=I_{B2}=1.0mA$)	50	ns

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

SOT-89



1. Base
2. Collector
3. Emitter

DIMENSINS					
DIM	INCHES		MM		NOTES
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.19	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

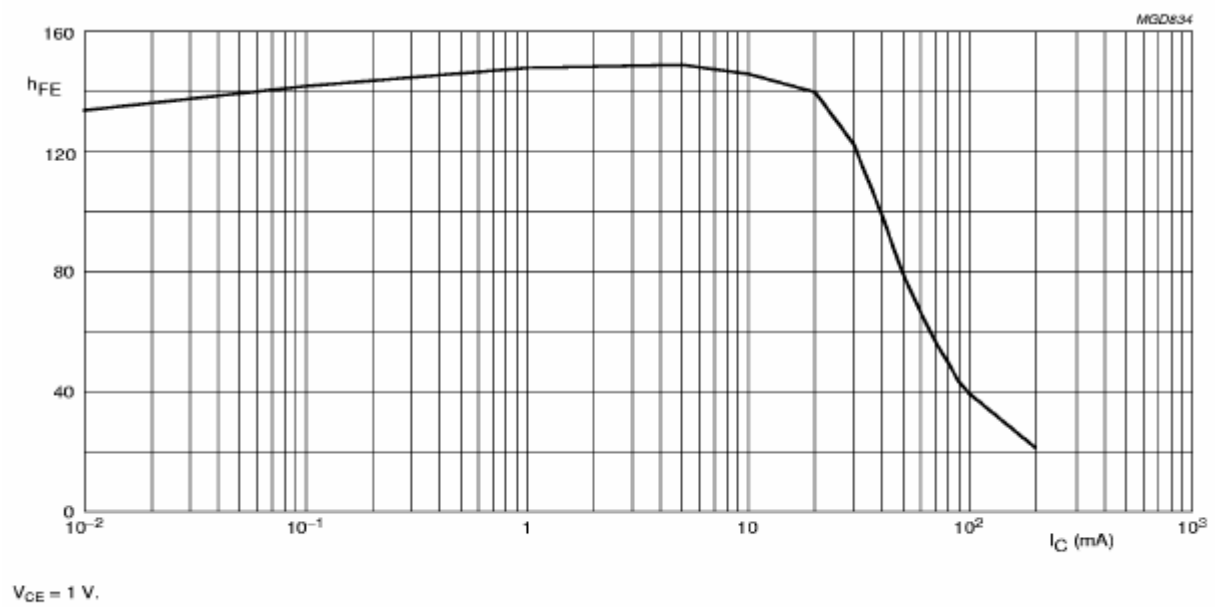


Fig.2 DC current gain; typical values.

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 1Kpcs/Reel

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

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