



Micro Commercial Components



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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

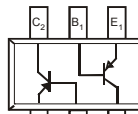
MMDT2907A

PNP General Purpose Amplifier

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Complementary NPN Type available MMDT2222A
- Capable of 200mWatts of Pd, 600mA continuous collector current.
- Operating and Storage Junction Temperatures: -55°C to 150°C
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : K2F

Pin Configuration
Top View



- 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* ($I_C=-10\text{mAdc}$, $I_B=0$)	-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_{EBO}	Emitter Cutoff Current ($V_{EB}=-5\text{Vdc}$, $I_C=0$)		-10	nAdc
I_{CEX}	Collector Cutoff Current ($V_{CE}=-30\text{Vdc}$, $V_{BE}=-0.5\text{Vdc}$)		-50	nAdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=-50\text{Vdc}$, $I_E=0$)		-10	nAdc

ON CHARACTERISTICS

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

SMALL-SIGNAL CHARACTERISTICS

f_T	Current Gain-Bandwidth Product ($I_C=-50\text{mAdc}$, $V_{CE}=-20\text{Vdc}$, $f=100\text{MHz}$)	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	($V_{CC}=-3.0\text{Vdc}$, $I_C=-150\text{mAdc}$, $I_{B1}=-15\text{mAdc}$)	10	ns
t_r	Rise Time	($I_{B1}=-15\text{mAdc}$)	40	ns
t_s	Storage Time	($V_{CC}=-3.0\text{Vdc}$, $I_C=-150\text{mAdc}$)	225	ns
t_f	Fall Time	($I_{B1}=I_{B2}=-15\text{mAdc}$)	60	ns

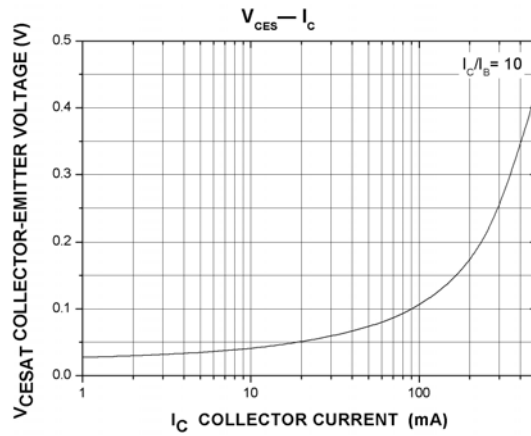
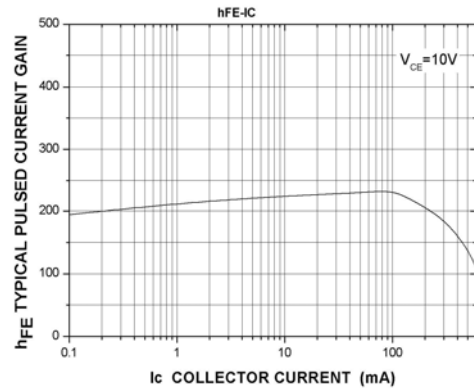
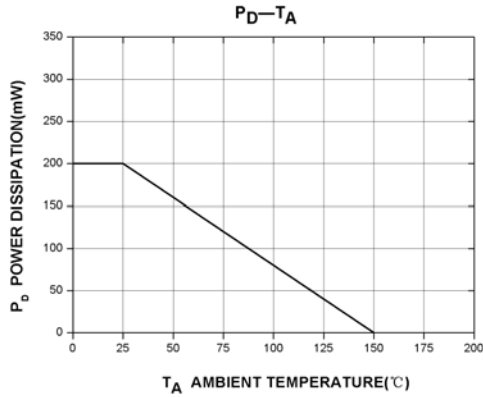
*Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2.0\%$

SOT-363



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	

MMDT2907A





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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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