



Micro Commercial Components

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MMDT4403

PNP Plastic-Encapsulate Transistors

Features

- Epitaxial Planar Die Construction
- Ideal for Low Power Amplification and Switching
- Case Material: Molded Plastic. UL Flammability Classification Rating 94-0 and MSL Rating 1
- Marking: K4M/K2T

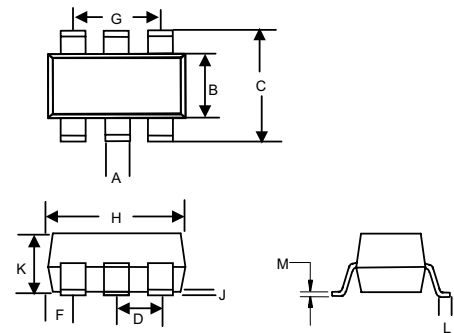
Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating(PNP)	Unit
V _{CEO}	Collector-Emitter Voltage	40	V
V _{CB0}	Collector-Base Voltage	40	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current-Continuous	0.6	A
P _C	Collector Dissipation	0.2	W
T _J	Operating Junction Temperature	-55 to +150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

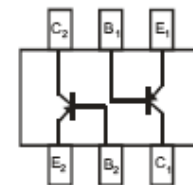
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units	
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =-1mA, I _B =0)	40	---	Vdc	
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =100μA, I _E =0)	40	---	Vdc	
V _{(BR)EBO}	Collector-Emitter Breakdown Voltage (I _E =100μA, I _C =0)	5	---	Vdc	
I _{CBO}	Collector Cutoff Current (V _{CB} =50Vdc, I _E =0)	---	0.1	μA	
I _{EBO}	Emitter Cutoff Current (V _{EB} =-5Vdc, I _C =0)	---	0.1	μA	
h _{FE}	DC Current Gain (I _C =0.1mA, V _{CE} =1Vdc)	30	---	---	
	(I _C =1mA, V _{CE} =1Vdc)	60	---		
	(I _C =10mA, V _{CE} =1Vdc)	100	---		
	(I _C =150mA, V _{CE} =2Vdc)	100	300		
	(I _C =500mA, V _{CE} =2Vdc)	20	---		
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =150mA, I _B =15mA) (I _C =500mA, I _B =50mA)	---	0.4 0.75	Vdc	
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =150mA, I _B =15mA) (I _C =500mA, I _B =50mA)	0.75	0.95 1.3	Vdc	
f _T	Current Gain-Bandwidth Product (V _{CE} =10.0Vdc, I _C =20mA, f=100MHz)	200	---	MHz	
C _{ob}	Output Capacitance (V _{CB} =10Vdc, f=1.0MHz, I _E =0)	---	8.5	pF	
t _d	Delay Time	V _{CC} =30V, I _C =150mA, V _{BE} =2.00V, I _{B1} =15.00mA	---	15	ns
t _r	Rise Time	V _{CC} =30V, I _C =150mA, I _{B1} =15mA	---	20	ns
t _s	Storage Time	V _{CC} =30V, I _C =150mA, I _{B1} =15mA	---	225	ns
t _f	Fall Time	V _{CC} =30V, I _C =150mA, I _{B1} =15mA	---	30	ns

SOT-363



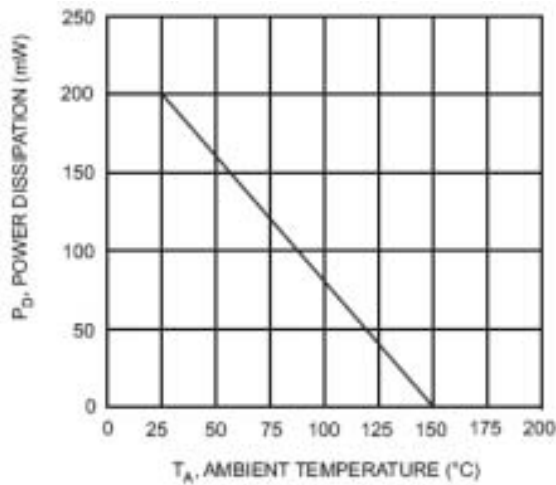
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.004	.012	0.10	0.30	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 0.65Nominal				
F	.012	.016	0.30	0.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.039	0.90	1.00	
L	.010	.016	0.25	0.40	
M	.004	.016	0.10	0.25	



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T_A , AMBIENT TEMPERATURE ($^{\circ}C$)

Fig. 1. Max Power Dissipation vs Ambient Temperature

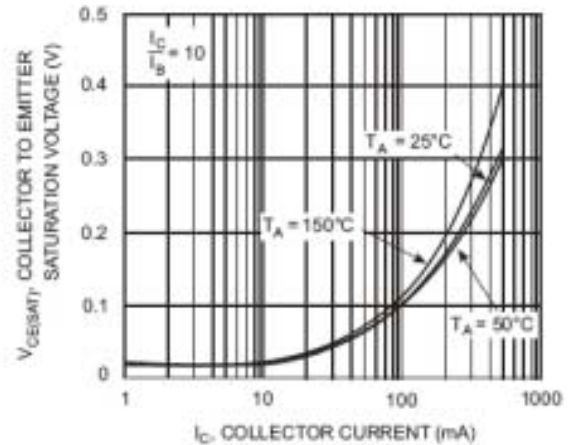
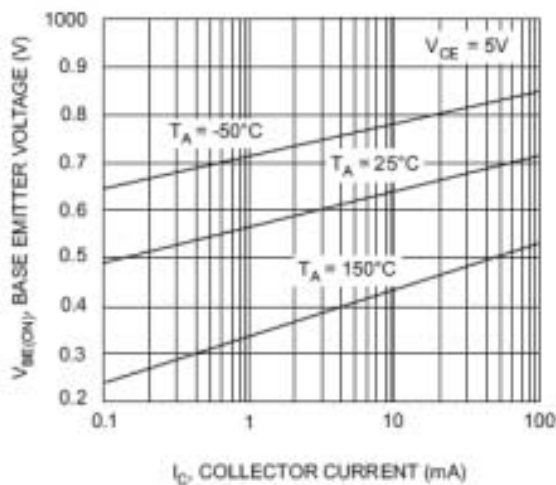


Fig. 2. Collector Emitter Saturation Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)

Fig. 3. Base-Emitter Voltage vs. Collector Current

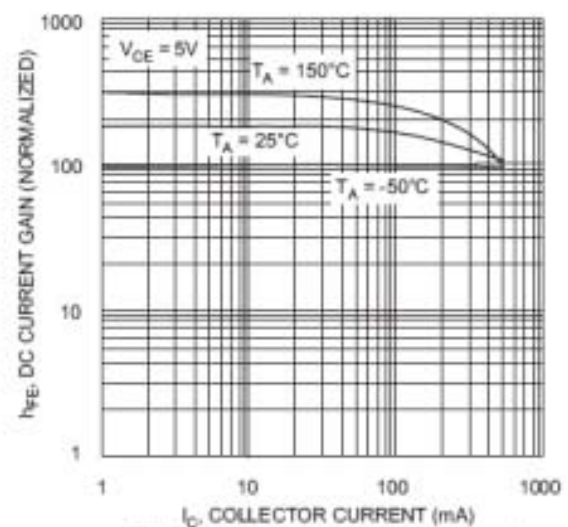


Fig. 4. DC Current Gain vs. Collector Current

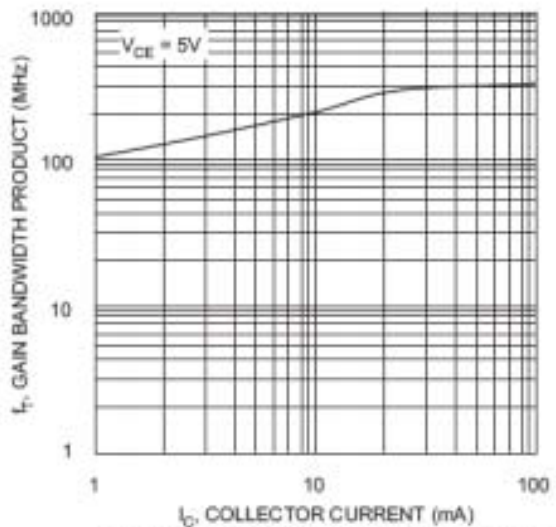


Fig. 5. Gain Bandwidth Product vs. Collector Current

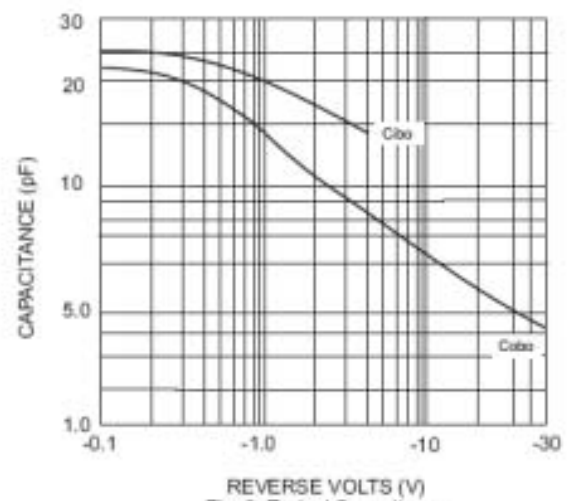


Fig. 6. Typical Capacitance



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Ordering Information

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

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