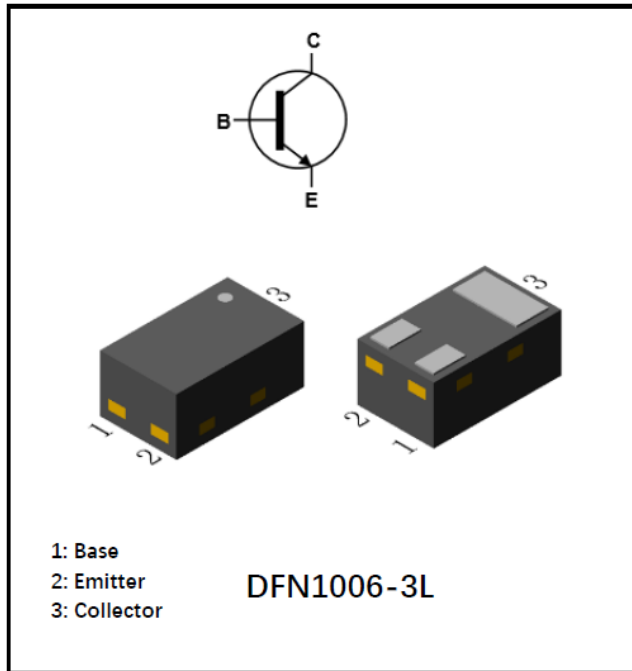


NPN General Purpose Amplifier



Features

- Lead Free Finish/RoHS Compliant
- Small package saves board space
- Moisture Sensitivity Level 3

Mechanical Data

- **Package:** DFN1006-3L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 1AM

■Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	40
Collector-Base Voltage	V_{CBO}	V	60
Emitter-Base Voltage	V_{EBO}	V	6.0
Collector Current	I_C	mA	200
Collector Power Dissipation	P_C	mW	100
Operation Junction Temperature	T_J	$^\circ\text{C}$	-55 to +150
Storage Temperature	T_{STG}	$^\circ\text{C}$	-55 to +150

■Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBT3904L3	Approximate 0.89	10K	100K	400K	Tape & Reel



MMBT3904L3

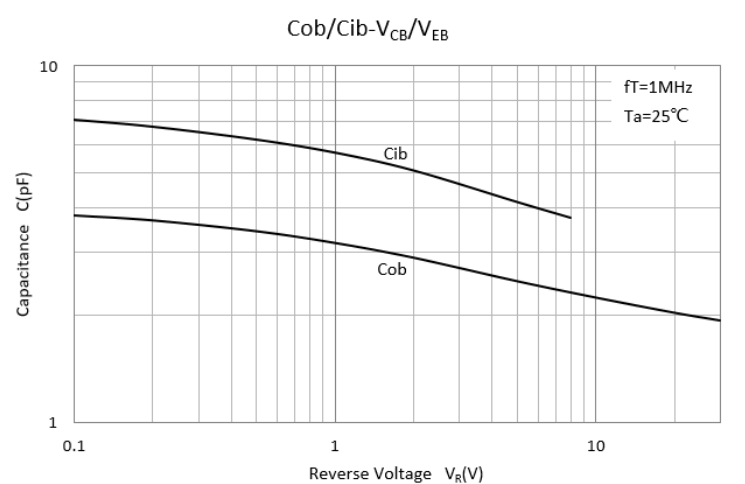
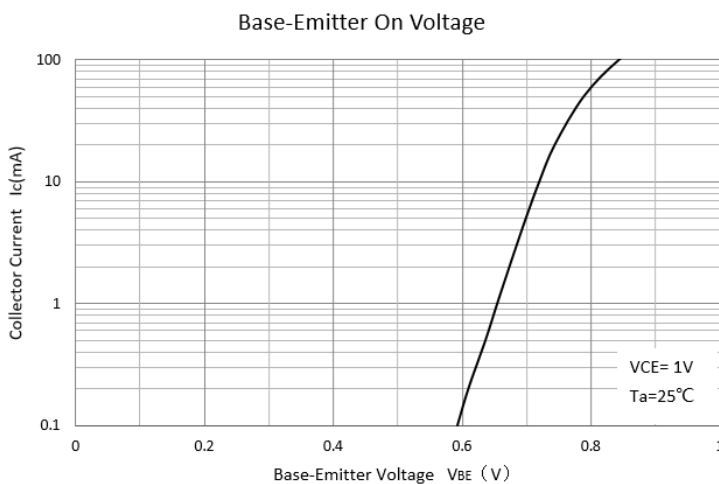
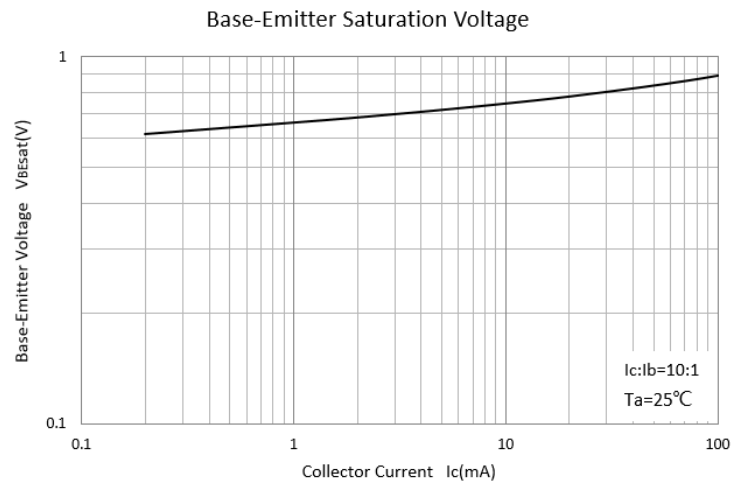
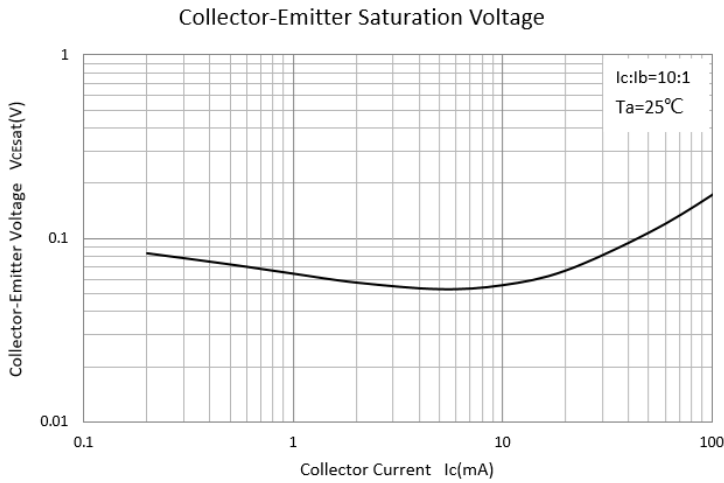
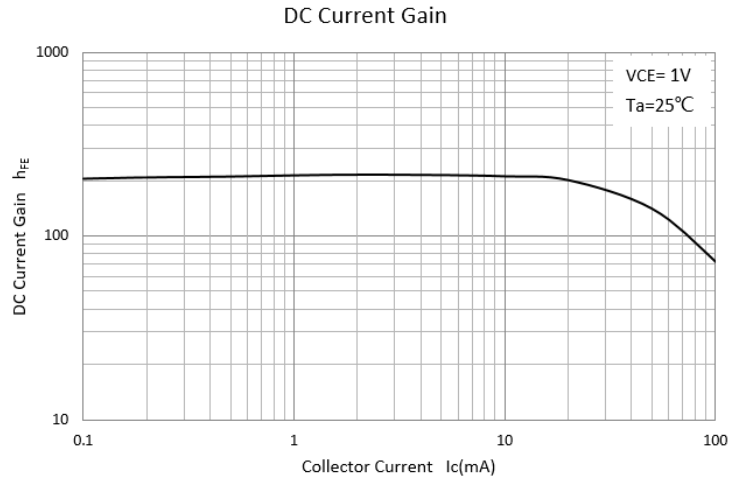
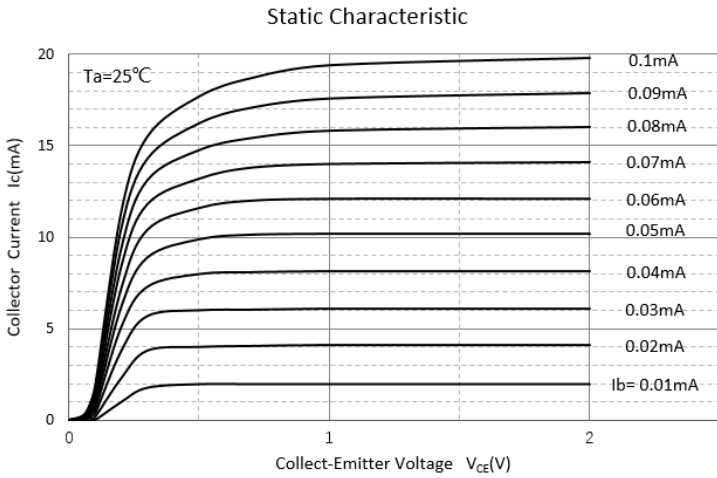
■Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Voltage	V _{CEO}	V	I _C =1.0mA _{dc} , I _B =0	40	-
Collector-Base Voltage	V _{CBO}	V	I _C =10μA _{dc} , I _E =0	60	-
Emitter-Base Voltage	V _{EBO}	V	I _E =10μA _{dc} , I _C =0	6.0	-
Collector-base Cut-off Current	I _{CBO}	nA _{dc}	V _{CB} =30V _{dc}	-	50
Emitter-Base Cut-off Current	I _{EBO}	nA _{dc}	V _{EB} =5V _{dc}	-	50
DC Current Gain	h _{FE}		I _C =0.1mA _{dc} , V _{CE} =1.0V _{dc}	40	-
			I _C =1.0mA _{dc} , V _{CE} =1.0V _{dc}	70	-
			I _C =10mA _{dc} , V _{CE} =1.0V _{dc}	100	300
			I _C =50mA _{dc} , V _{CE} =1.0V _{dc}	60	-
			I _C =100mA _{dc} , V _{CE} =1.0V _{dc}	30	-
Collector-Emitter Saturation Voltage	V _{CE(sat)}	V _{dc}	I _C =10mA _{dc} , I _B =1.0mA _{dc}	-	0.2
			I _C =50mA _{dc} , I _B =5.0mA _{dc}	-	0.3
Base-Emitter Saturation Voltage	V _{BE(sat)}	V _{dc}	I _C =10mA _{dc} , I _B =1.0mA _{dc}	0.65	0.85
			I _C =50mA _{dc} , I _B =5.0mA _{dc}	-	0.95
Collector-base Output Capacitance	C _{obo}	pF	V _{CB} =5.0V _{dc} , f=1.0MHz, I _E =0	-	4
Transition frequency	f _T	MHz	I _C =10mA _{dc} , V _{CE} =20V _{dc} , f=100MHz	300	-
Delay Time	t _d	ns	V _{CC} =3.0V _{dc} , V _{BE} =0.5V _{dc} , I _C =10mA _{dc} , I _{B1} =1.0mA _{dc}	-	35
Rise Time	t _r	ns		-	35
Storage Time	t _s	ns	V _{CC} =3.0V _{dc} , I _C =10mA _{dc} , I _{B1} =I _{B2} =1.0mA _{dc}	-	200
Fall Time	t _f	ns		-	50

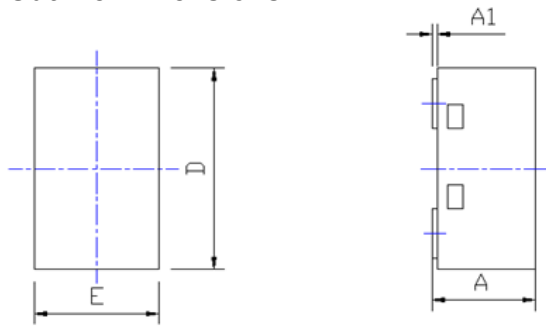


MMBT3904L3

■ Characteristics (Typical)

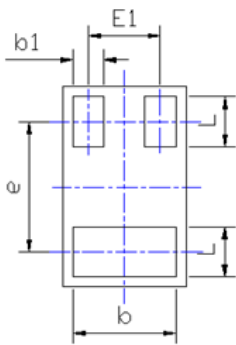


■ Outline Dimensions



TOP VIEW

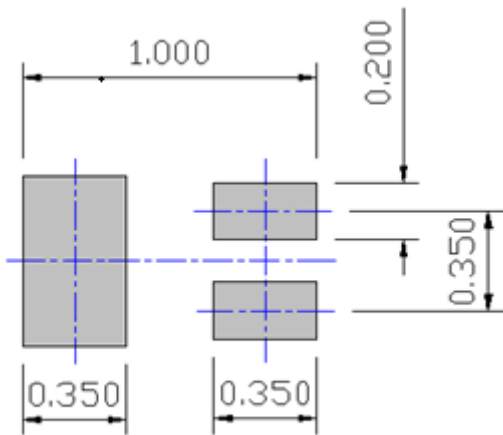
SIDE VIEW



BOTTOM VIEW

DIMENSIONS			
SYMBOL	Millimeter		
	MIN.	NOM.	MAX.
A	0.42	---	0.55
A1	0.025REF		
b	0.45	0.50	0.55
b1	0.10	0.15	0.20
D	0.95	1.00	1.05
E	0.55	0.60	0.65
E1	0.35BSC		
e	0.65BSC		
L	0.20	0.25	0.30

■ Soldering Footprint



UNIT: mm



MMBT3904L3

Disclaimer

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