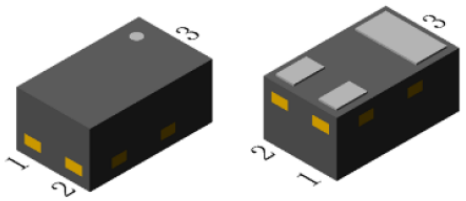
PNP General Purpose Amplifier

DFN1006-3L



1: Base
2: Emitter
3: Collector

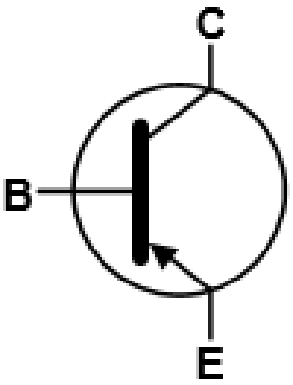
Features

- We declare that the material of product compliance with RoHS requirements and Halogen Free
- Surface mount package ideally suited for automatic Insertion
- Moisture Sensitivity Level 3
- General switching and amplification

Mechanical Data

- Package: DFN1006-3L
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking: 2A

■Equivalent circuit



■Maximum Ratings (Ta=25℃ Unless otherwise specified)

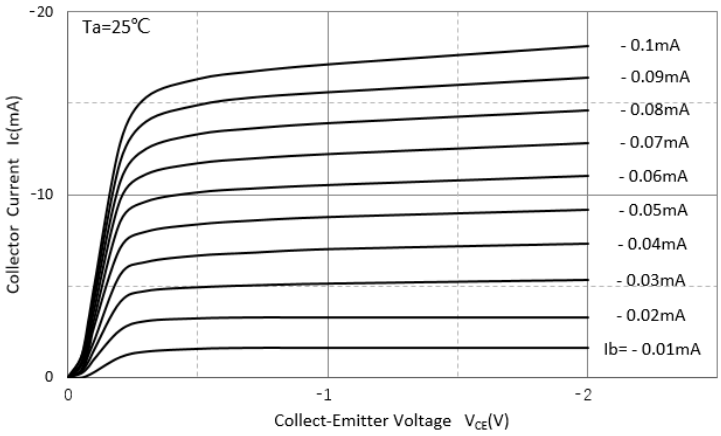
Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V	IC=-10μA,IE=0	-40
Collector-Emitter Voltage	V_{CEO}	V	IC =-1mA,IB=0	-40
Emitter-Base Voltage	V_{EBO}	V	IE=-10μA,IC=0	-5
Collector Current	I_C	mA		-200
Collector Power Dissipation	P_C	mW		100
Operation Junction Temperature	T_j	℃		-55 to +150
Storage Temperature	T_{STG}	℃		-55 to +150

■Electrical Characteristics (Ta=25℃ unless otherwise specified)

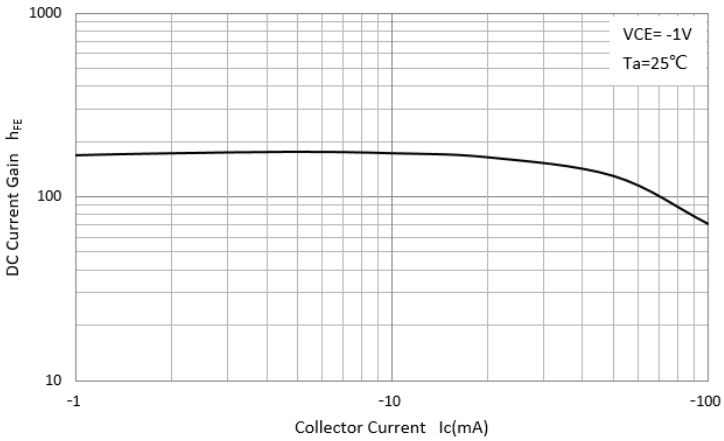
Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	IC=-10μA,IE=0	-40	-	-
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	IC =-1mA,IB=0	-40	-	-
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	IE=-10μA,IC=0	-5	-	-
Collector-base Cut-off Current	I_{CBO}	nA	V_{CB}=-30Vdc	-	-	-50
Emitter-base cut-off current	I_{EBO}	nA	V_{EB}=-5Vdc	-	-	-50
DC current gain	$h_{FE}1$		VCE=-1V,IC=-0.1mA	60	-	-
	$h_{FE}2$		VCE=-1V,IC=-1mA	80	-	-
	$h_{FE}3$		VCE=-1V,IC=-10mA	100	-	300
	$h_{FE}4$		VCE=-1V,IC=-50mA	60	-	-
	$h_{FE}5$		VCE=-1V,IC=-100mA	30	-	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=-10mA,IB=-1mA	-	-	-0.25
		V	IC=-50mA,IB=-5mA	-	-	-0.4
Base-emitter saturation voltage	$V_{BE(sat)}$	V	IC=-10mA,IB=-1mA	-0.65	-	-0.85
		V	IC=-50mA,IB=-5mA	-	-	-0.95
Collector-Base Output Capacitance	Cob	pF	VCB=-5V,IE=0A,f=1MHz	-	-	4.5
Transition frequency	fT	MHZ	IC=-10mAdc,VCE=-20Vdc, f=100MHz	250	-	-
Delay Time	td	ns	VCC=-3V, IC=-10mA, VBE=-0.5V, IB1=-1mA	-	-	35
Rise Time	tr	ns		-	-	35
Storage Time	ts	ns	VCC=-3V,IC=-10mA,IB1=IB2=-1mA	-	-	225
Fall Time	tf	ns		-	-	75

■ Electrical Characteristics (Typical)

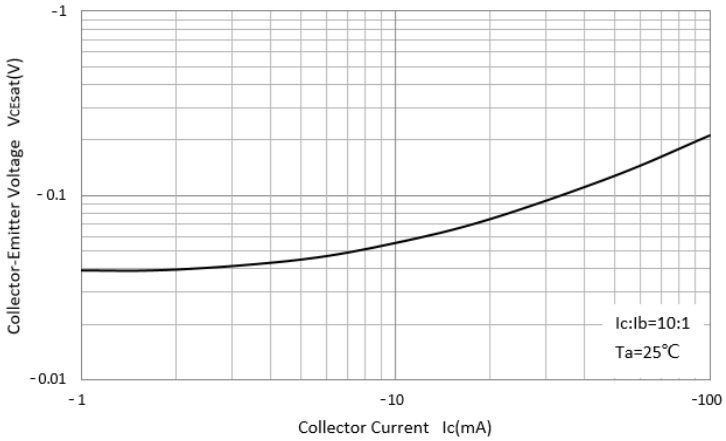
Static Characteristic



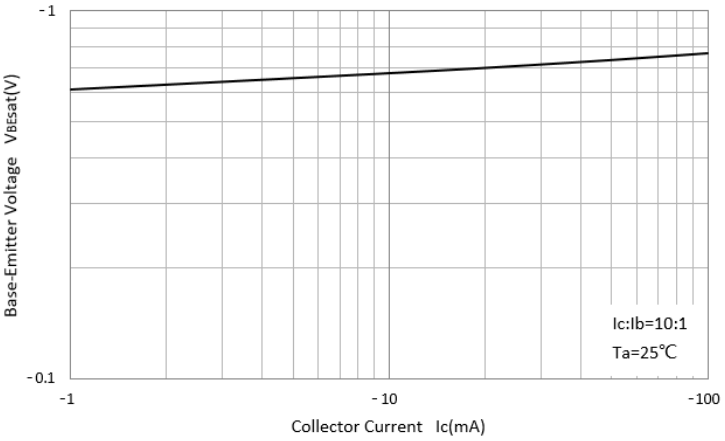
DC Current Gain



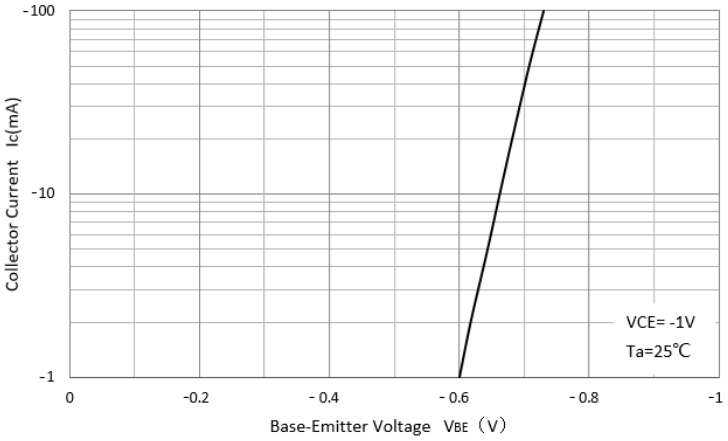
Collector-Emitter Saturation Voltage



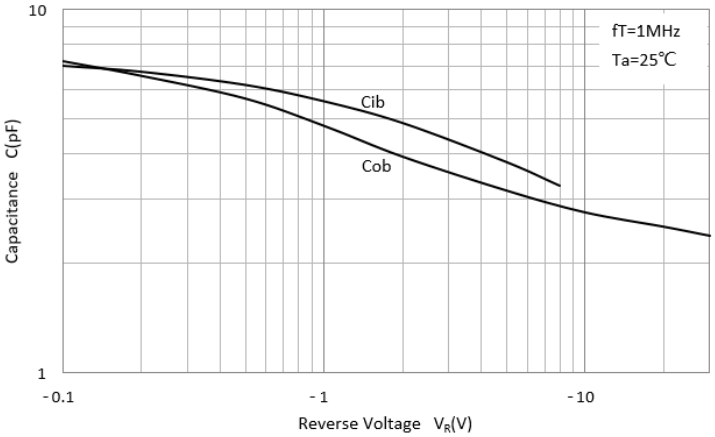
Base-Emitter Saturation Voltage



Base-Emitter On Voltage



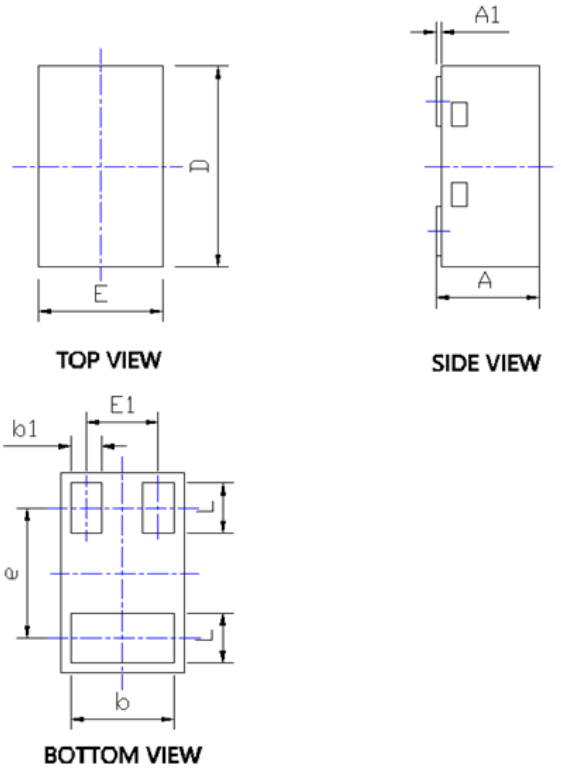
Cob/Cib-V_{CB}/V_{EB}



■ Ordering Information (Example)

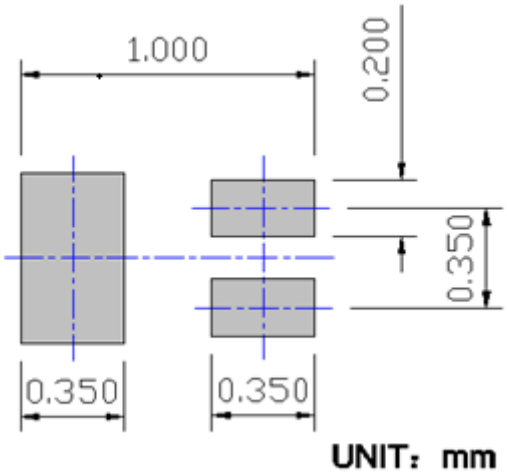
PREFERED P/N	UNIT WEIGHT(mg)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBT3906L3	Approximate 0.89	10K	100K	400K	Tape & Reel

■DFN1006-3L Package Outline Dimensions



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

■DFN1006-3L Soldering Footprint



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