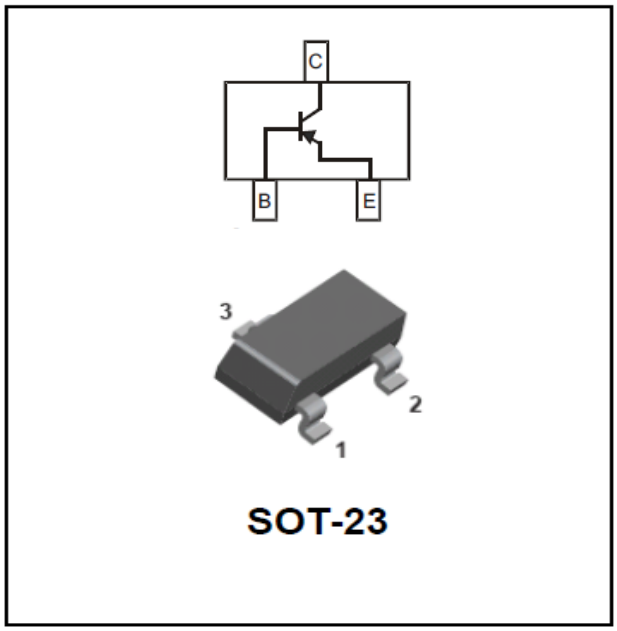
PNP General Purpose Amplifier



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisure Sensitivity Level 1
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

Mechanical Data

- **Package**: SOT-23

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking**: 2F

■Maximum Rantings (Ta=25℃ unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Base Voltage	V_{CBO}	V		-60
Collector-Emitter Voltage	V_{CEO}	V		-60
Emitter-Base Voltage	V_{EBO}	V		-5
Collector Current	I_C	A		-0.6
Collector Power Dissipation	P_C	mW		300
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	℃/W		417
Junction Temperature	T_j	℃		-55 to +150
Storage Temperature	T_{stg}	℃		-55 to +150

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBT2907A	F2	Approximate 0.008	3000	30000	120000	7" reel

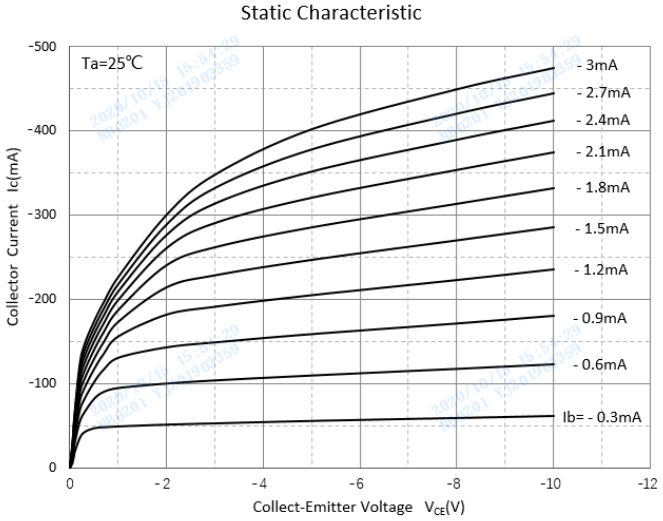
■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

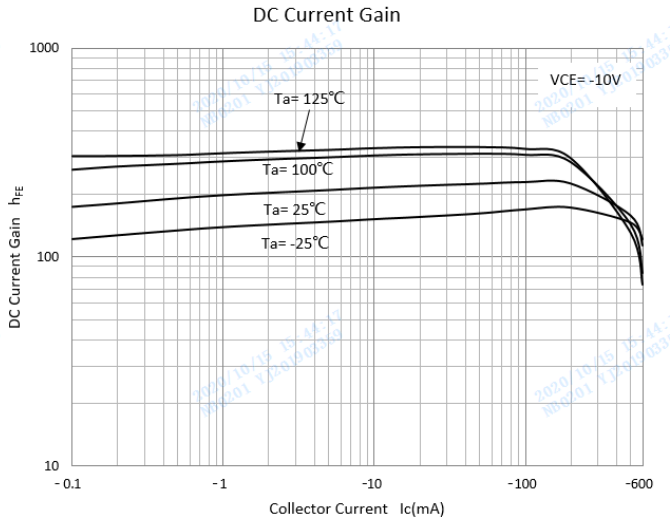
Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	V_{CBO}	V	IC=-10μA,IE=0	-60	
Collector-emitter breakdown voltage	V_{CEO}	V	IC =-10mA,IB=0	-60	
Emitter-base breakdown voltage	V_{EBO}	V	IE=-10μA,IC=0	-5	
Collector-base cut-off current	I_{CBO}	uA	VCB=-50V,IE=0		-0.1
Collector-emitter cut-off current	I_{CEX}	uA	VCE=-30V, VBE=-0.5V		-0.05
DC current gain	h_{FE}		VCE=-10V,IC=-0.1mA	75	
	h_{FE}		VCE=-10V,IC=-1mA	100	
	h_{FE}		VCE=-10V,IC=-10mA	100	
	h_{FE}		VCE=-10V,IC=-150mA	100	300
	h_{FE}		VCE=-10V,IC=-500mA	50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=-150mA,IB=-15mA		-0.4
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	IC=-500mA,IB=-50mA		-1.6
Base-emitter saturation voltage	$V_{BE(sat)}$	V	IC=-150mA,IB=-15mA		-1.3
Base-emitter saturation voltage	$V_{BE(sat)}$	V	IC=-500mA,IB=-50mA		-2.6

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

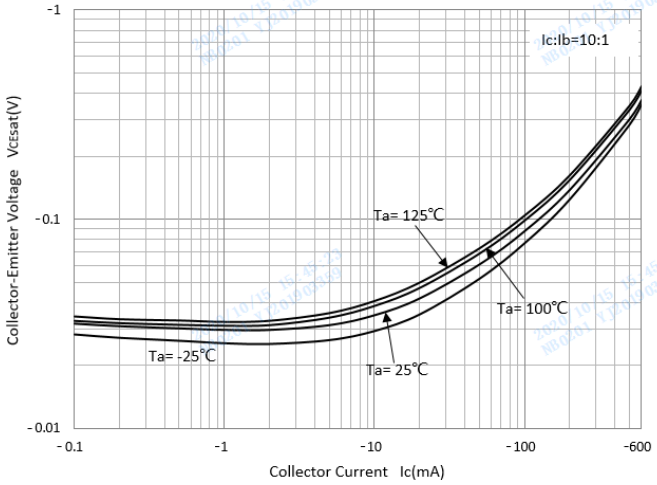
Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	Ft	MHz	VCE=-20V,IC=-50mA,f=100MHz	200	
Delay time	td	ns	VCC=-30V,IC=-150mA, IB1=-15mA		10
Rise time	tr	ns			40
Storage time	ts	ns	VCC=-6V,IC=-150mA, IB1= IB2=-15mA		80
Fall time	tf	ns			30

■Characteristics(Typical)

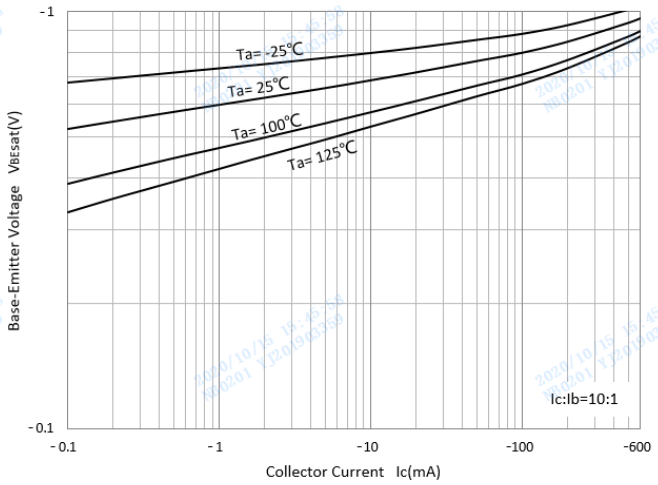




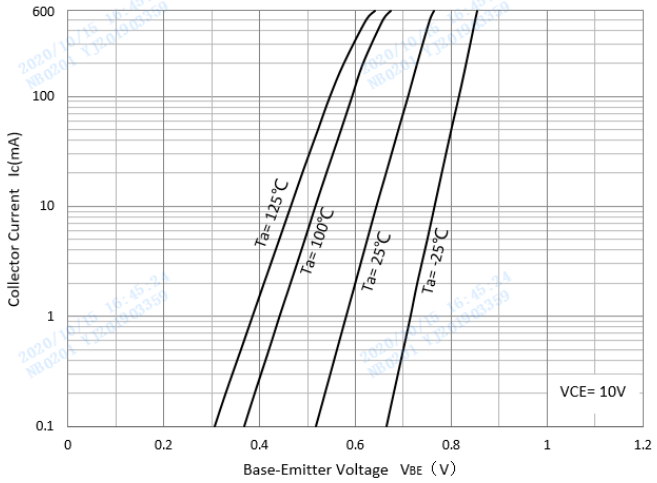
Collector-Emitter Saturation Voltage



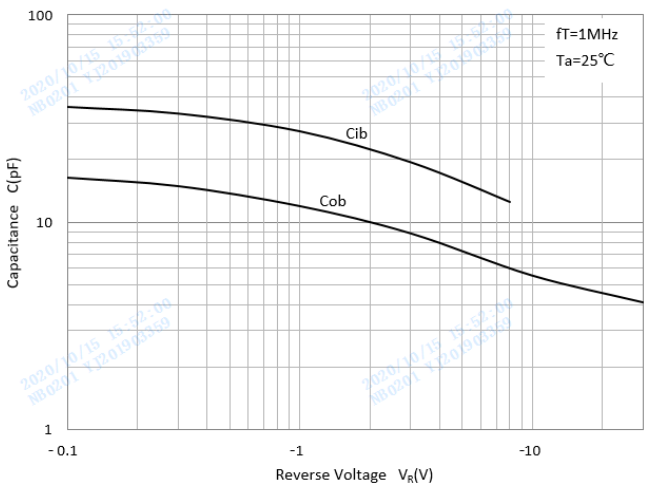
Base-Emitter Saturation Voltage



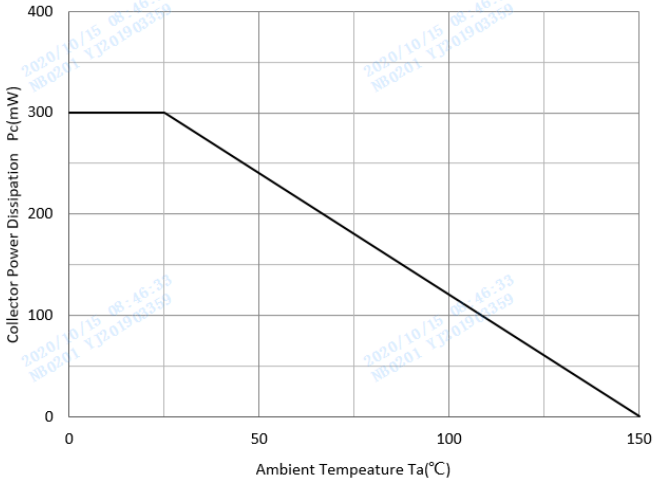
Base-Emitter On Voltage



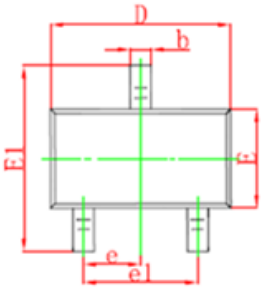
Cob/Cib-V_{CB}/V_{EB}

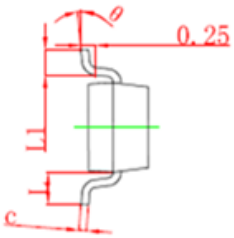


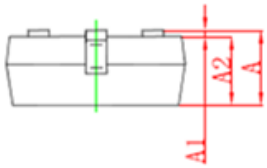
Collector Power Derating Curve



■SOT-23 Package Outline Dimensions







Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Soldering Footprint