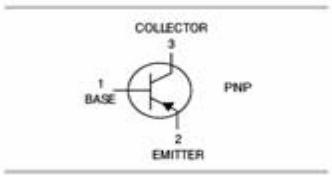
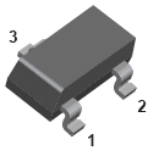
PNP General Purpose Amplifier MMBT2907A

FEATURES

Lead-free

- Epitaxial planar die construction.
- Complementary NPN type available MMBT2222A.
- Ideal for medium power amplification and switching.





SOT-23

APPLICATIONS

- This device is designed as a general purpose amplifier and switching.
- The useful dynamic range extends to 600mA as a switch and to 100MHz as a amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBT2907A	2F	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Unit**
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-600	mA
P_D	Total Device Dissipation	350	mW
$R_{\theta jA}$	Thermal Resistance Junction to Ambient	357	℃/W
T_j, T_{stg}	Junction and Storage Temperature	-55 to+150	℃

PNP General Purpose Amplifier MMBT2907A

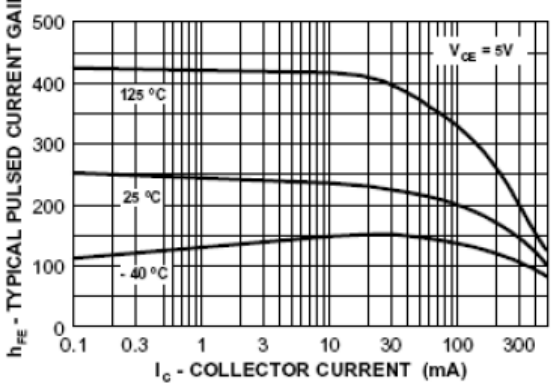
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA I_E=0	-60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA I_B=0	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA I_C=0	-5		μV
Collector cut-off current	I_{CBO}	V_{CB}=-50V I_E=0 V_{CB}=-50V I_E=0 T_A=150℃		-20 -20	nA μA
Collector cut-off current	I_{CEX}	V_{CE}=-30V,$V_{EB(OFF)}$=-0.5V		-50	nA
Base cut-off current	I_B	V_{CE}=-30V,$V_{EB(OFF)}$=-0.5V		-50	nA
DC current gain	h_{FE}	V_{CE}=-10V I_C=-100μA V_{CE}=-10V I_C=-1mA V_{CE}=-10V I_C=-10mA V_{CE}=-10V I_C=-150mA V_{CE}=-10V I_C=-500mA	75 100 100 100 50	- - - 300 -	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-150mA I_B=-15mA I_C=-500mA I_B=-50mA		-0.4 -1.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-150mA I_B=-15mA I_C=-500mA I_B=-50mA		-1.3 -2.6	V
Transition frequency	f_T	V_{CE}=-20V I_C=-50mA f=100MHz	200		MHz
Output Capacitance	C_{obo}	V_{CB}=-10V f=100kHz I_E=0	-	8.0	pF
Input Capacitance	C_{ibo}	V_{EB}=-2V f=100kHz I_C=0	-	30	pF
Delay time	t_d	V_{CE}=-30V, I_C=-150mA, I_{B1}=-15mA		10	ns
Rise time	t_r			40	ns
Storage time	t_s	V_{CE}=-6V, I_C=-150mA I_{B1}=-I_{B2}=-15mA		80	ns
Fall time	t_f			30	ns

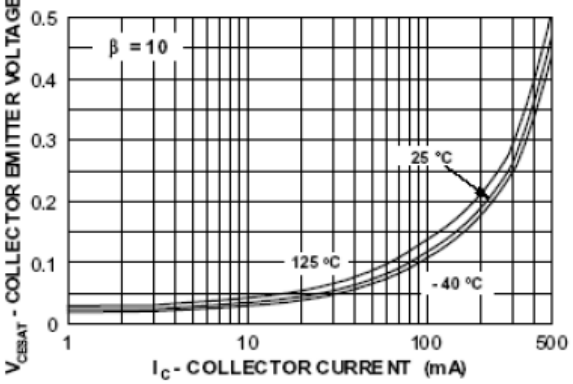
PNP General Purpose Amplifier MMBT2907A

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

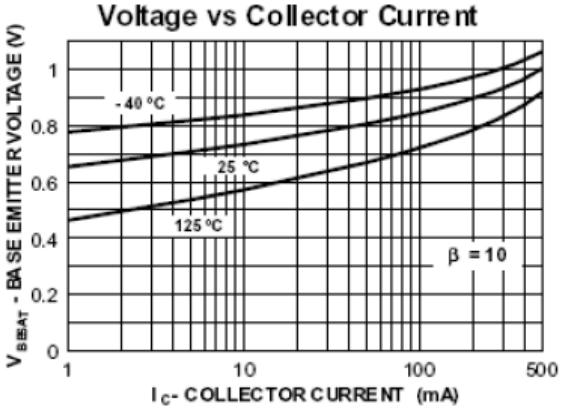
Typical Pulsed Current Gain vs Collector Current



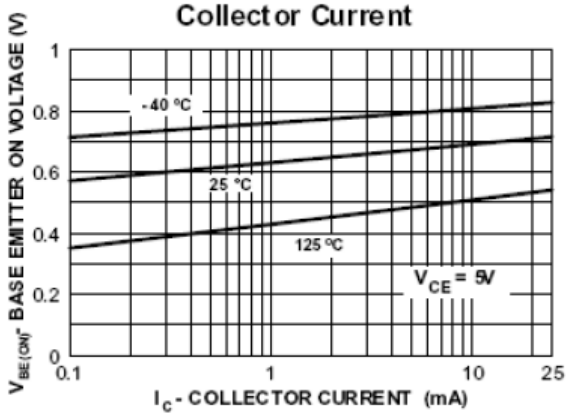
Collector-Emitter Saturation Voltage vs Collector Current



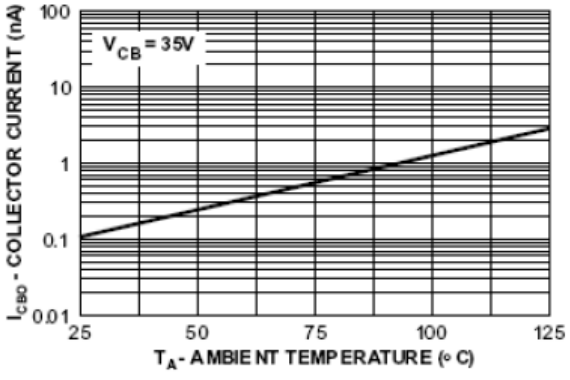
Base-Emitter Saturation Voltage vs Collector Current



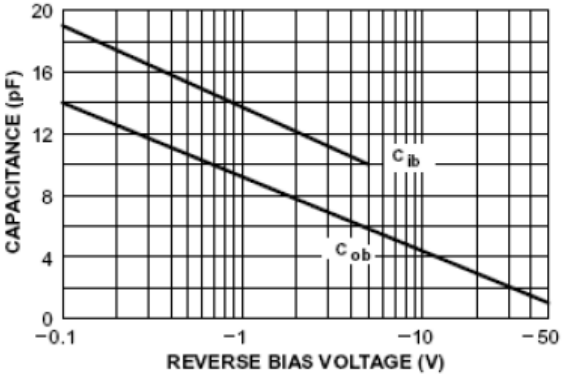
Base Emitter ON Voltage vs Collector Current



Collector-Cutoff Current vs Ambient Temperature



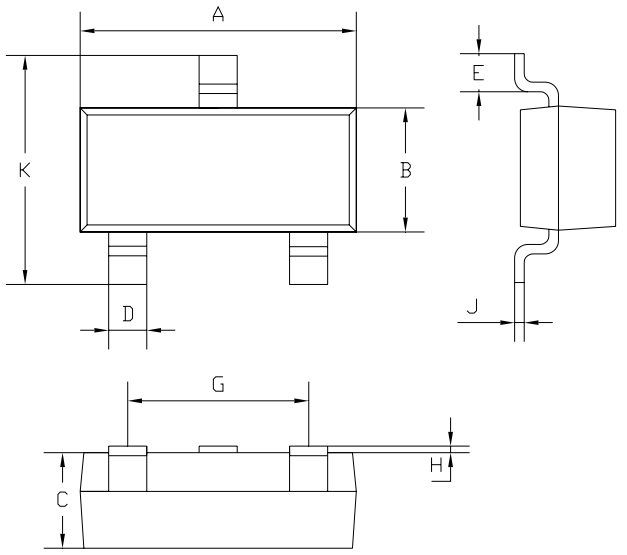
Input and Output Capacitance vs Reverse Bias Voltage



PNP General Purpose Amplifier MMBT2907A

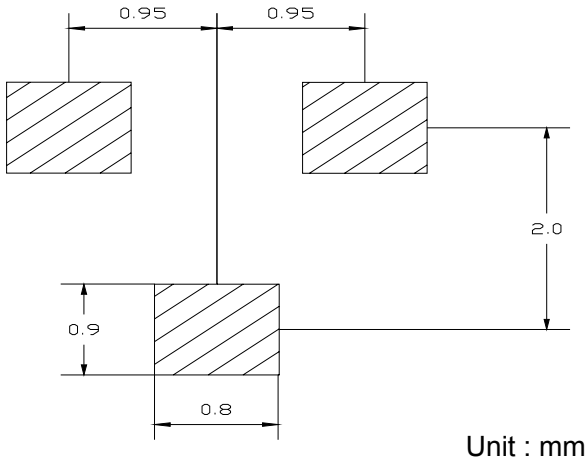
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMBT2907A	SOT-23	3000/Tape&Reel