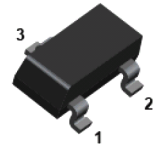
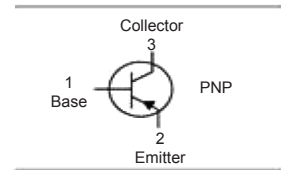


PNP General Purpose Amplifier



Features:

- 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.

Maximum Rating @ TA = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current -Continuous	I _c	-600	mA
Total Device Dissipation	P _d	350	mW
Thermal Resistance Junction to Ambient	R _{θJA}	357	°C/W
Junction and Storage Temperature	T _j , T _{stg}	-55 to +150	°C

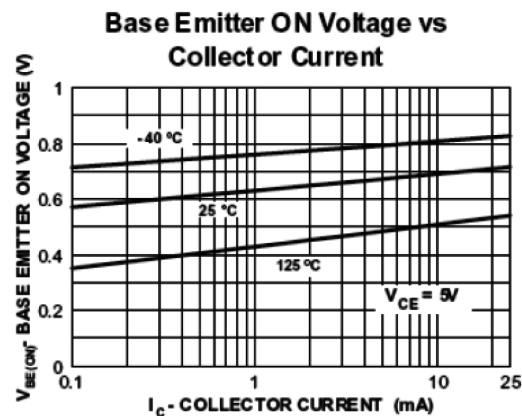
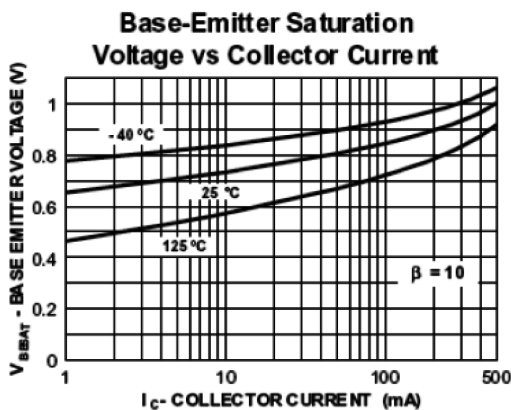
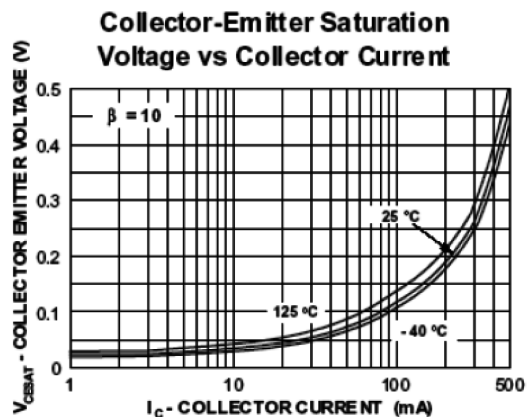
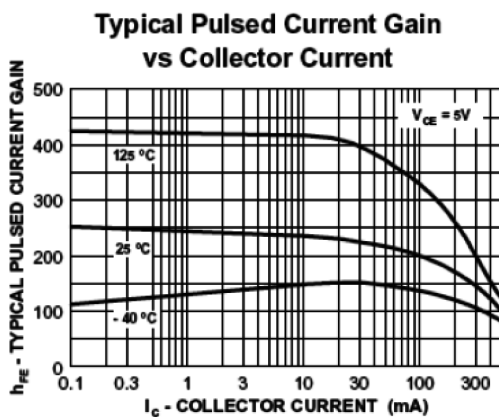
Electrical Characteristics @ TA = 25°C unless otherwise specified

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°C		-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	75	-	
		V _{CE} =-10V I _c =-1mA	100	-	
		V _{CE} =-10V I _c =-10mA	100	-	
		V _{CE} =-10V I _c =-150mA	100	300	
		V _{CE} =-10V I _c =-500mA	50	-	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =-150mA I _B =-15mA I _c =-500mA I _B =-50mA		-0.4 -1.6	V

PNP General Purpose Amplifier

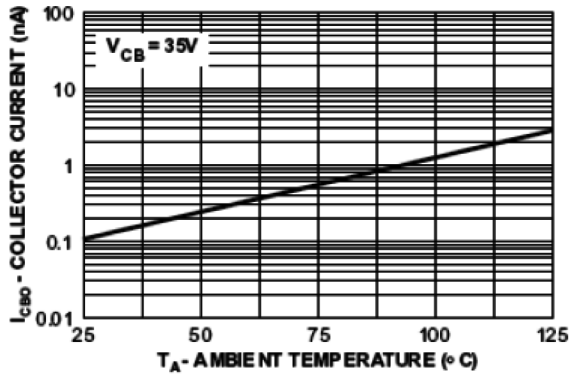
Parameter	Symbol	Test conditions	Min.	Max.	Unit
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -150mA$ $I_B = -15mA$ $I_C = -500mA$ $I_B = -50mA$		-1.3 -2.6	V
Transition frequency	f_T	$V_{CE} = -20V$ $I_C = -50mA$ $f = 100MHz$	200		MHz
Output Capacitance	C_{obo}	$V_{CB} = -10V$ $f = 100kHz$ $I_E = 0$	-	8	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

Typical Characteristics @ $T_A = 25^\circ C$ unless otherwise specified

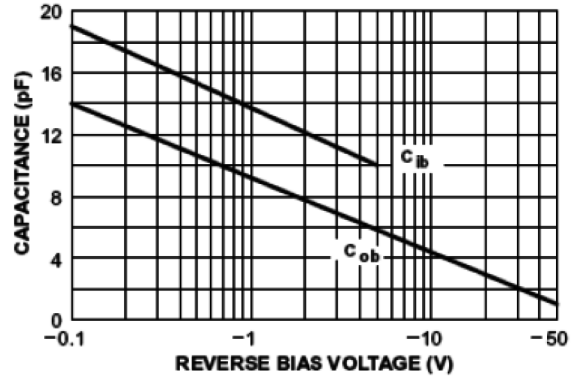


PNP General Purpose Amplifier

Collector-Cutoff Current vs Ambient Temperature

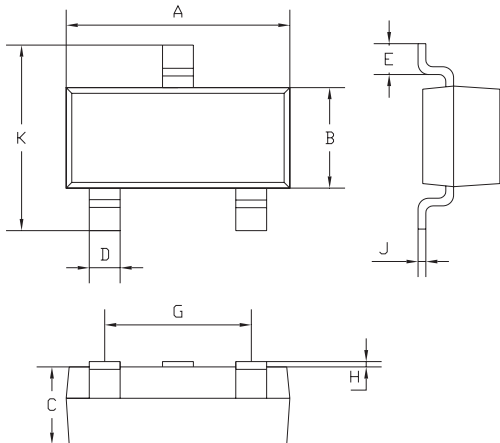


Input and Output Capacitance vs Reverse Bias Voltage



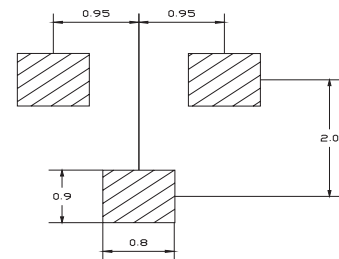
Package Outline

Plastic surface mounted package



SOT-23		
Dim.	Min.	Max.
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		

Soldering Footprint



Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, Bipolar, PNP, -60V, -600mA, SOT-23	MMBT2907A-7-F

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