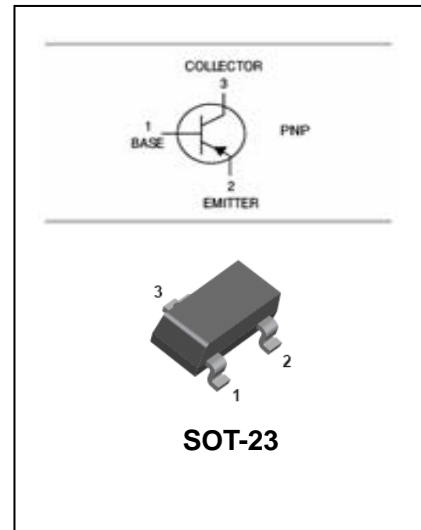


PNP General Purpose Transistor

MMBT5401

FEATURES

- Epitaxial planar die construction.
- Complementary NPN type available (MMBT5551).
- Also available in lead free version.



APPLICATIONS

- Ideal for medium power amplification and switching

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBT5401	2L	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	UNIT
V_{CB0}	collector-base voltage	-160	V
V_{CEO}	collector-emitter voltage	-150	V
V_{EBO}	emitter-base voltage	-5	V
I_C	collector current (DC)	-0.6	A
P_C	Collector dissipation	0.3	W
T_j, T_{stg}	junction and storage temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CB0}$	Collector-base breakdown voltage	$I_C = -100\mu A, I_E = 0$	-160		
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -1mA, I_B = 0$	-150		
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -10\mu A, I_C = 0$	-5		
I_{CB0}	collector cut-off current	$I_E = 0; V_{CB} = -120V$	-	-0.1	μA
I_{EBO}	emitter cut-off current	$I_C = 0; V_{EB} = -4V$	-	-0.1	μA
h_{FE}	DC current gain	$V_{CE} = -5V; I_C = -1mA$ $V_{CE} = -5V; I_C = -10mA$ $V_{CE} = -5V; I_C = -50mA$	50 60 50	- 250 -	
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = -50mA; I_B = -5mA$	-	-0.5	V
$V_{BE(sat)}$	base-emitter saturation voltage	$I_C = -50mA; I_B = -5mA$	-	-1	V
f_T	transition frequency	$I_C = -10mA; V_{CE} = -5V;$ $f = 30MHz$	100	-	MHz

PNP General Purpose Transistor

MMBT5401

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

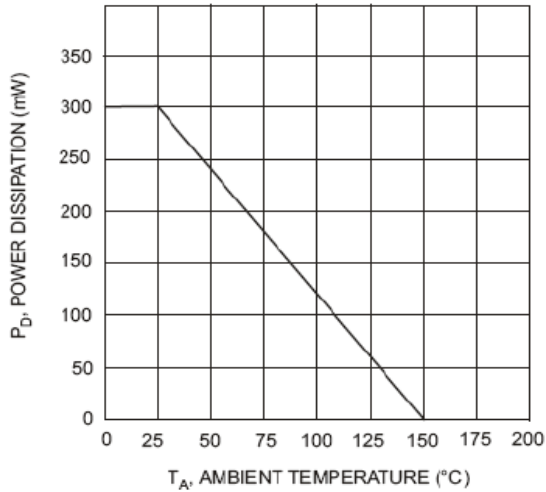


Fig. 1, Max Power Dissipation vs Ambient Temperature

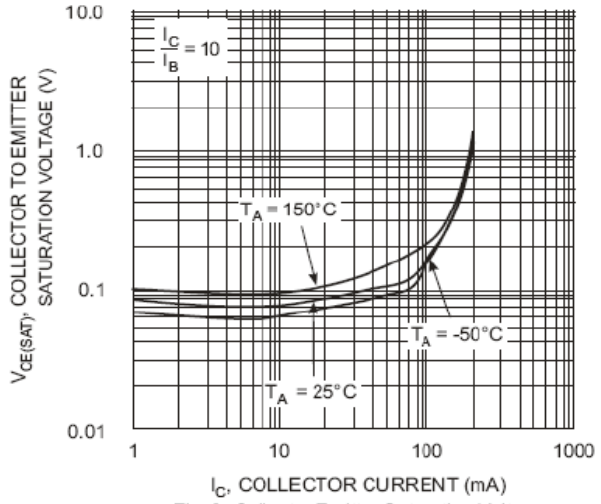


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

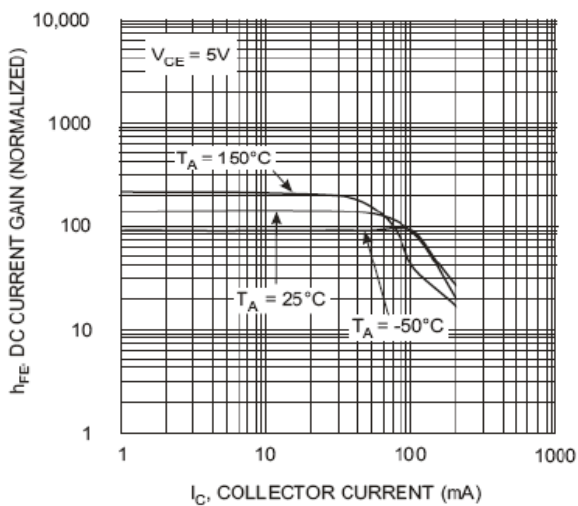


Fig. 3, DC Current Gain vs. Collector Current

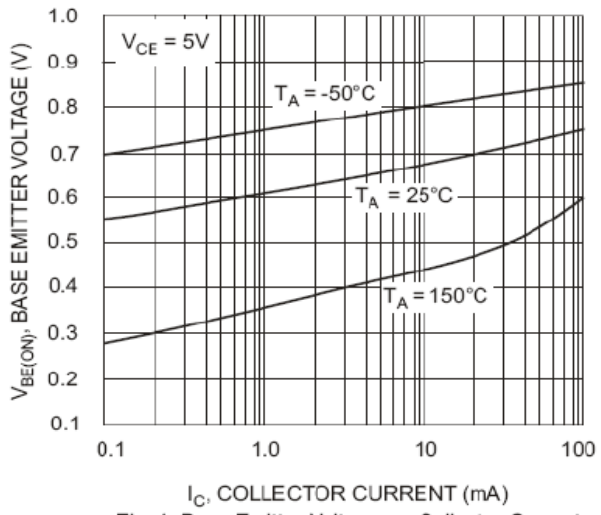


Fig. 4, Base Emitter Voltage vs. Collector Current

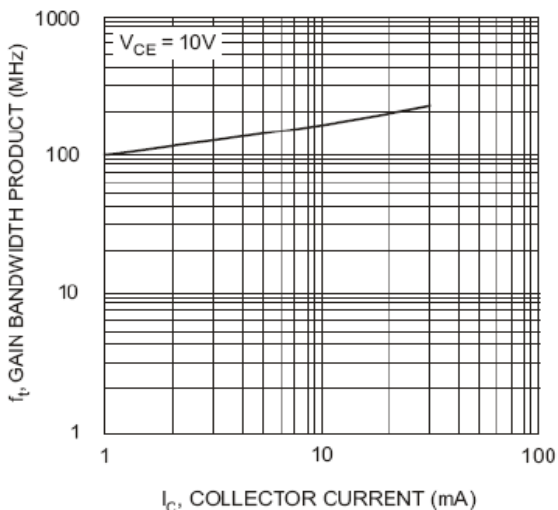


Fig. 5, Gain Bandwidth Product vs Collector Current

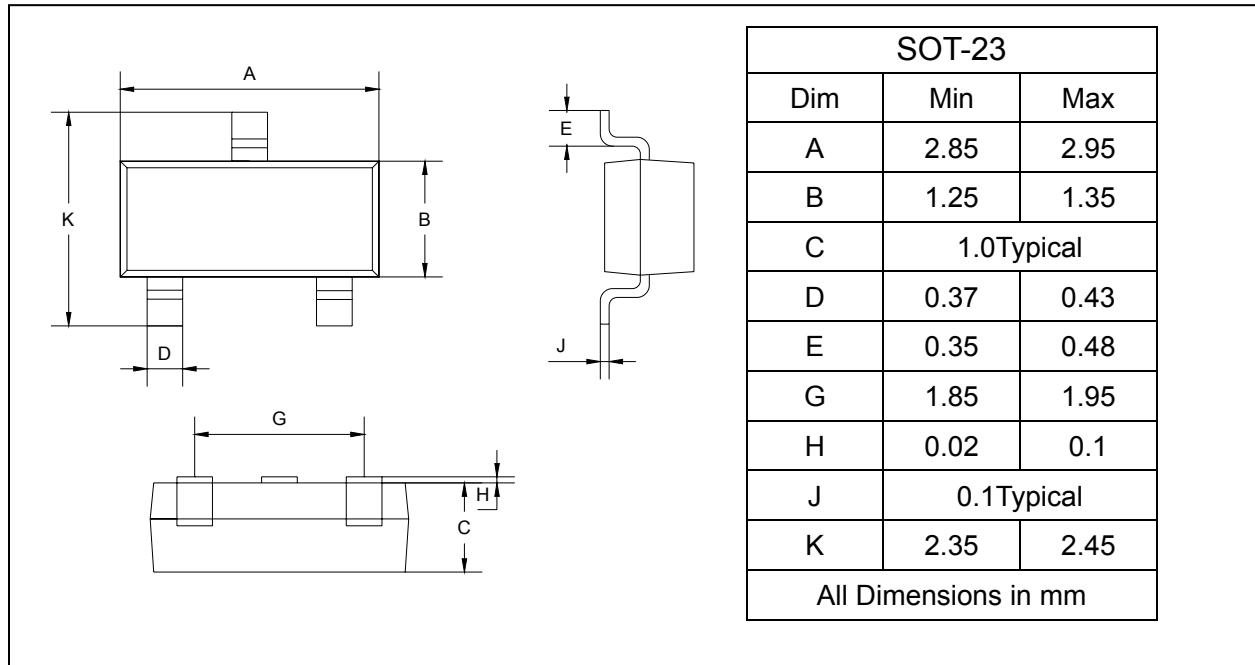
PNP General Purpose Transistor

MMBT5401

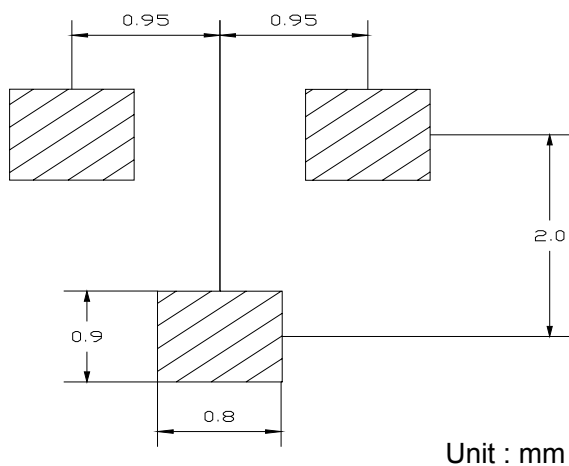
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBT5401	SOT-23	3000/Tape&Reel