

## PNP General Purpose Transistor

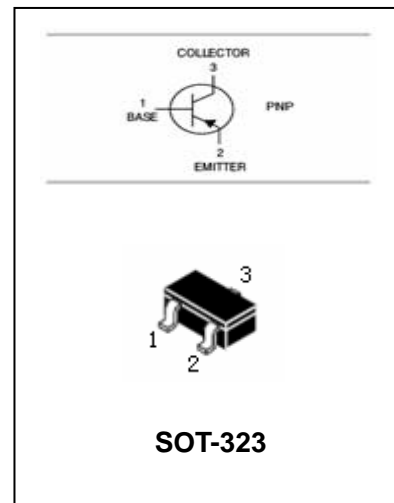
## MMST5401

### FEATURES

- Epitaxial planar die construction.
- Complementary NPN type available (MMST5551).
- Also available in lead free version.



Lead-free



### APPLICATIONS

- Ideal for medium power amplification and switching.

### ORDERING INFORMATION

Type No.	Marking	Package Code
MMST5401	K4M	SOT-323

### 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	0.2	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	$\mu A$
$I_{EBO}$	emitter cut-off current	$I_C = 0; V_{EB} = -4V$	-	-0.1	$\mu A$
$h_{FE}$	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

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

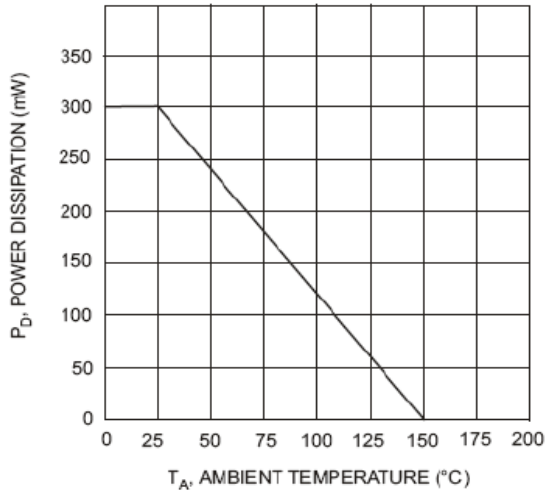


Fig. 1, Max Power Dissipation vs Ambient Temperature

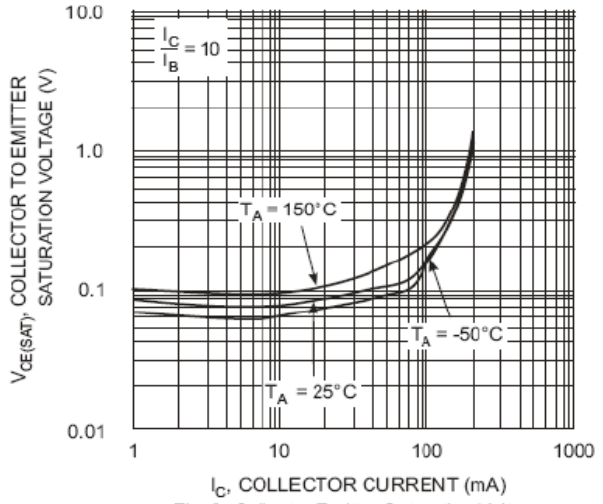


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

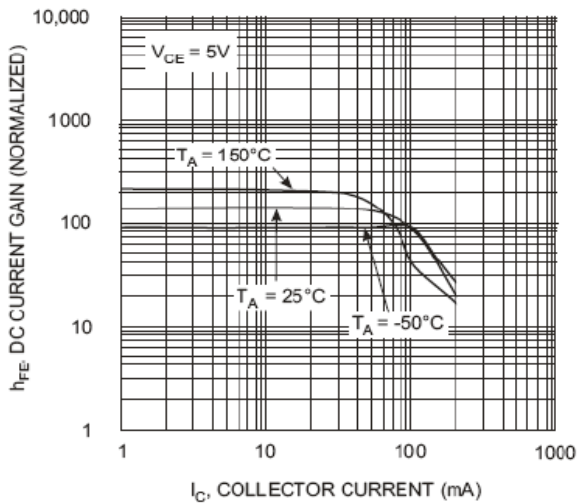


Fig. 3, DC Current Gain vs. Collector Current

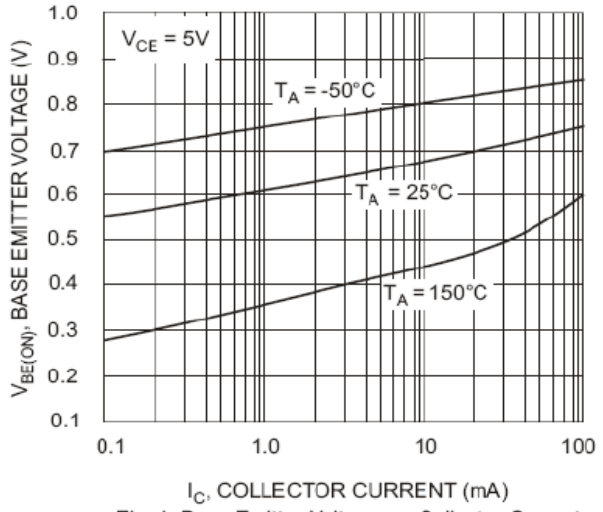


Fig. 4, Base Emitter Voltage vs. Collector Current

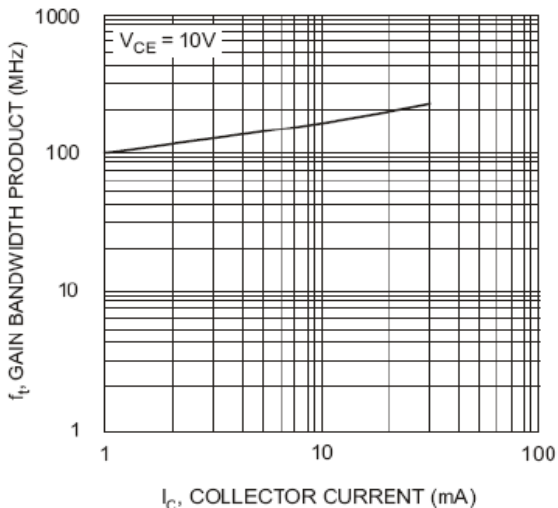


Fig. 5, Gain Bandwidth Product vs Collector Current

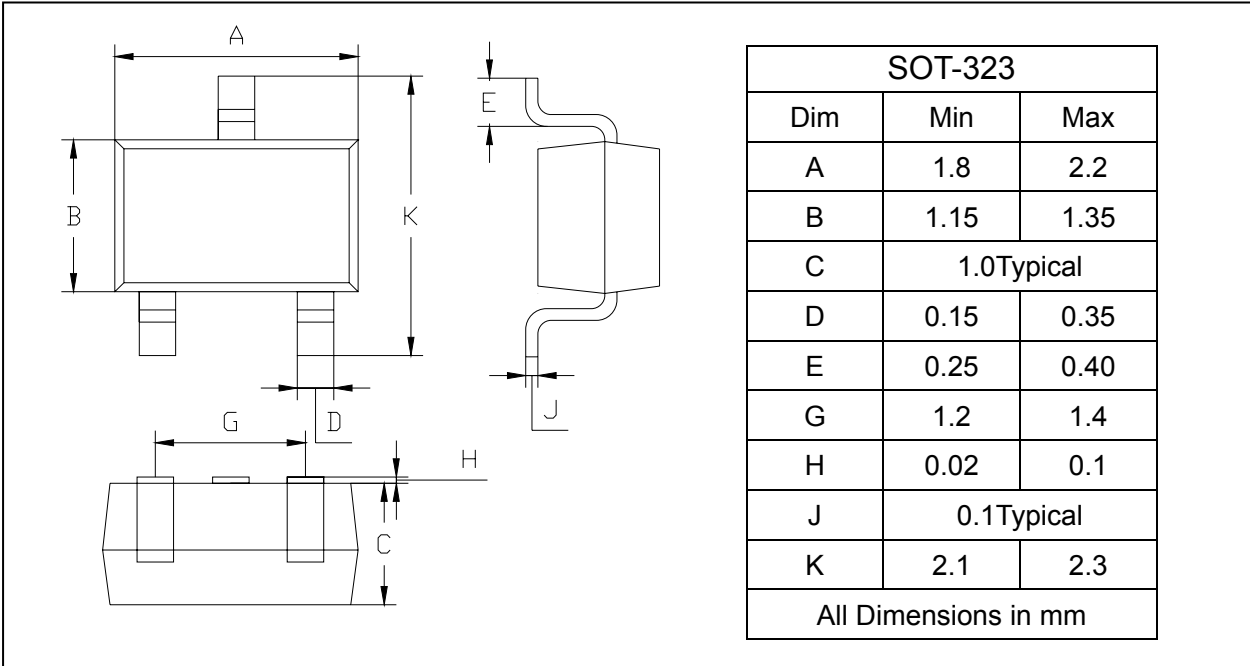
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## MMST5401

### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### PACKAGE INFORMATION

Device	Package	Shipping
MMST5401	SOT-323	3000/Tape&Reel