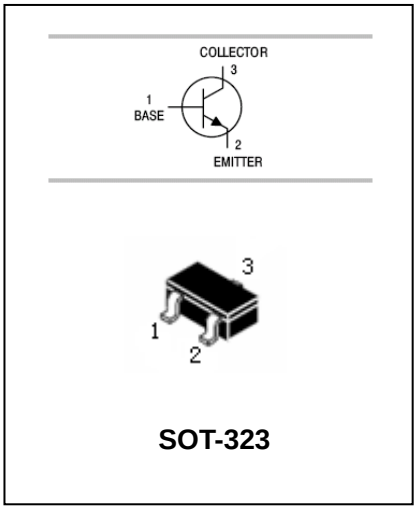
NPN General Purpose Transistor MMST5551

FEATURES

- Epitaxial planar die construction.
- Complementary PNP type available (MMST5401).
- Also available in lead free version.

Lead-free



SOT-323

APPLICATIONS

- Ideal for medium power amplification and switching.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMST5551	K4N	SOT-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	UNIT
V_{CBO}	collector-base voltage	180	V
V_{CEO}	collector-emitter voltage	160	V
V_{EBO}	emitter-base voltage	6	V
I_C	collector current (DC)	0.6	A
P_C	Collector dissipation	0.3	W
$R_{\theta JA}$	Thermal resistance junction to ambient	625	°C/W
T_j , T_{stg}	junction and storage temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

NPN General Purpose Transistor MMST5551

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=100μA,I_E=0	180		
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=0.1mA,I_B=0	160		
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=10μA,I_C=0	6		
I_{CBO}	collector cut-off current	I_E = 0; V_{CB} = 120V	-	50	nA
I_{EBO}	emitter cut-off current	I_C = 0; V_{EB} = 4V	-	50	nA
h_{FE}	DC current gain	V_{CE} = 5V; I_C= 1mA V_{CE} = 5V;I_C = 10mA V_{CE} = 5V;I_C = 50 mA	80 80 30	- 250 -	
$V_{CE(sat)}$	collector-emitter saturation voltage	I_C = 50 mA; I_B = 5 mA I_C = 10 mA; I_B = 1 mA	-	0.2 0.15	V
$V_{BE(sat)}$	base-emitter saturation voltage	I_C = 50 mA; I_B = 5 mA I_C = 10 mA; I_B = 1 mA	-	1 1	V
f_T	transition frequency	I_C = 10mA; V_{CE} = 10V; f = 100MHz	80	-	MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

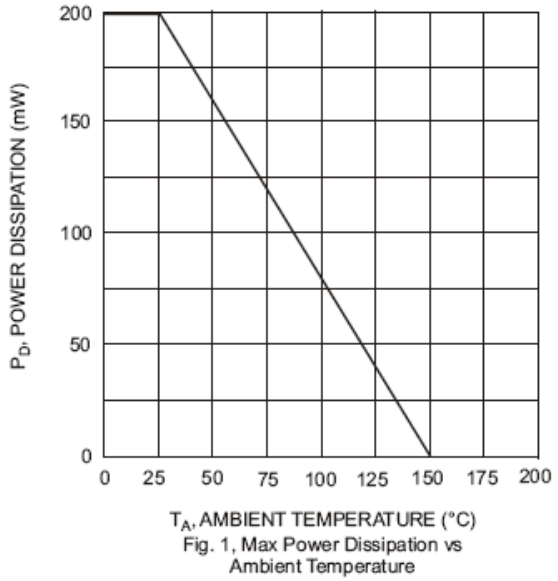


Fig. 1, Max Power Dissipation vs Ambient Temperature

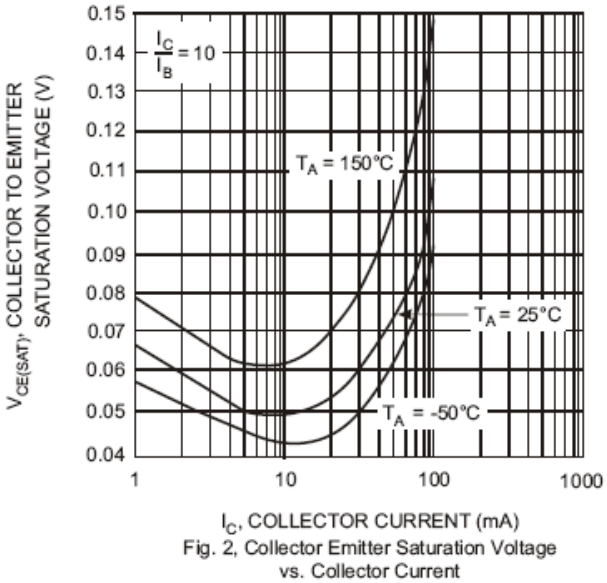


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

NPN General Purpose Transistor MMST5551

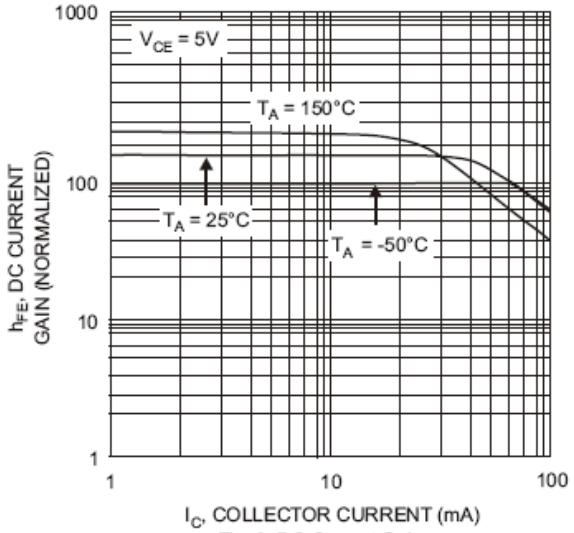


Fig. 3, DC Current Gain vs Collector Current

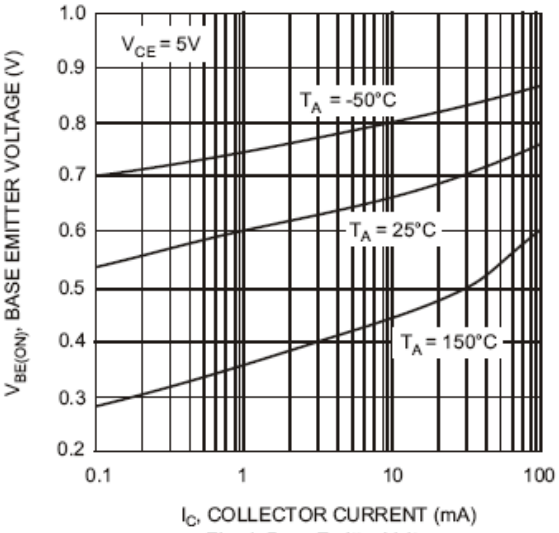


Fig. 4, Base Emitter Voltage vs. Collector Current

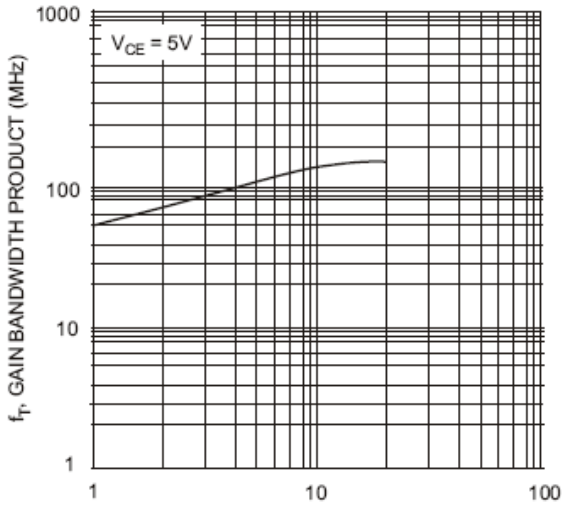
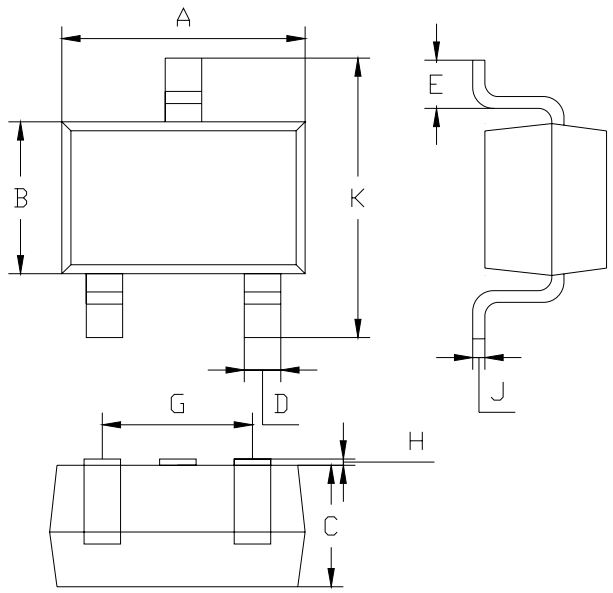


Fig. 5, Gain Bandwidth Product vs. Collector Current

NPN General Purpose Transistor MMST5551

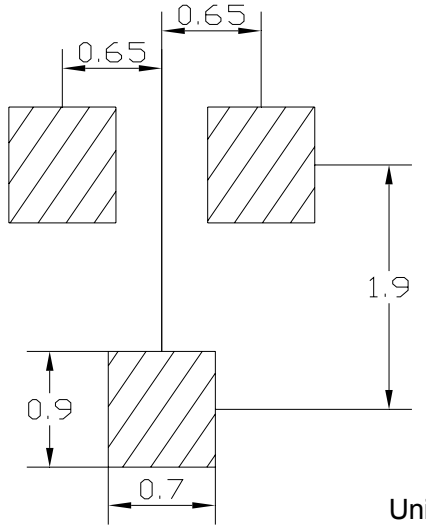
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMST5551	SOT-323	3000/Tape&Reel