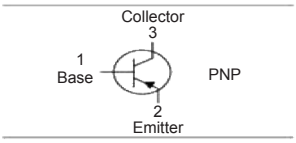
PNP General Purpose Transistor

Features:

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

Applications:

- Ideal for medium power amplification and switching.



SOT-323

Maximum Rating @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	
Emitter-Base Voltage	V_{EBO}	-5	
Collector Current (DC)	I_C	-0.6	A
Collector Dissipation	P_C	0.2	W
Thermal resistance ,Junction to ambient	$R_{\theta JA}$	625	°C/W
Junction and Storage Temperature	T_j,T_{stg}	-55 to 150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E = 0	-160		
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-150		
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-5		
Collector Cut-Off Current	I_{CBO}	I_E = 0; V_{CB} = -120V	-	-50	nA
Emitter Cut-Off Current	I_{EBO}	I_C = 0; V_{EB} = -3V		-50	
DC Current Gain	h_{FE}	V_{CE} = -5V; I_C = -1mA V_{CE} = -5V; I_C = -10mA V_{CE} = -5V; I_C = -50 mA	50 60 50	- 240 -	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -50 mA; I_B = -5mA I_C = -10mA; I_B = -1mA	-	-0.5 -0.2	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -50mA; I_B = -5mA I_C = -10mA; I_B = -1mA		-1 -1	
Transition Frequency	f_T	I_C = -10mA; V_{CE} = -10V, f = 100MHz	100	300	MHz
Noise Figure	NF	I_C = -200mA, V_{CE} = -5V, f = 100MHz		8	dB

Typical Characteristics @ T_A = 25°C unless otherwise specified

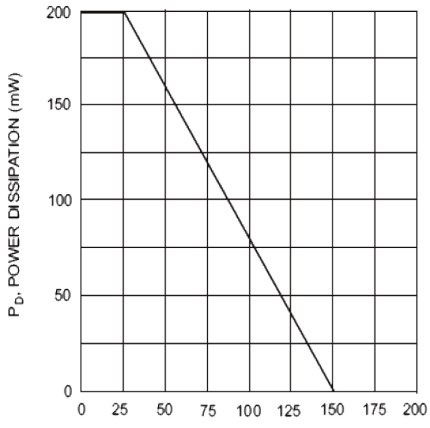


Fig. 1, Max Power Dissipation vs Ambient Temperature

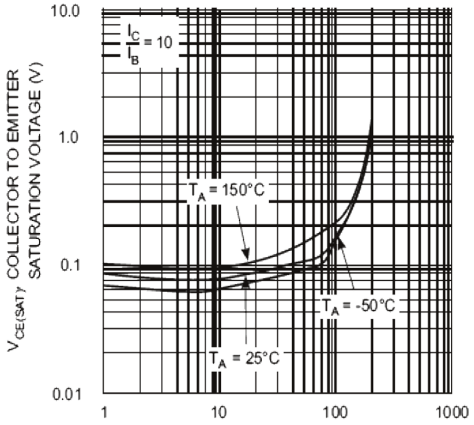


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

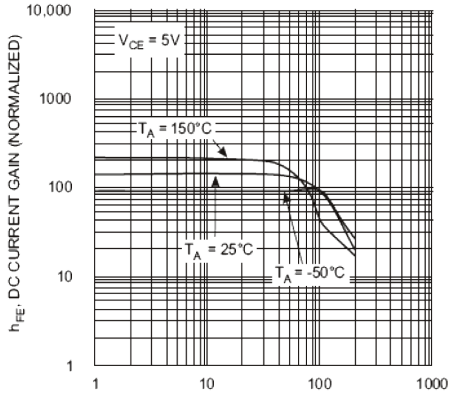


Fig. 3, DC Current Gain vs. Collector Current

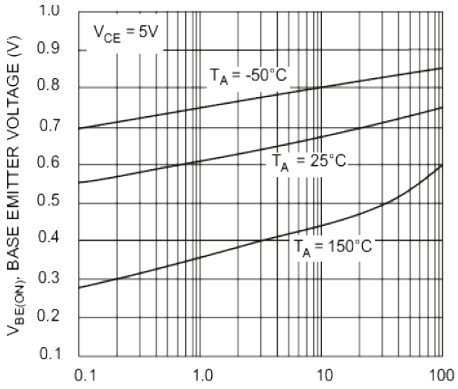


Fig. 4, Base Emitter Voltage vs. Collector Current

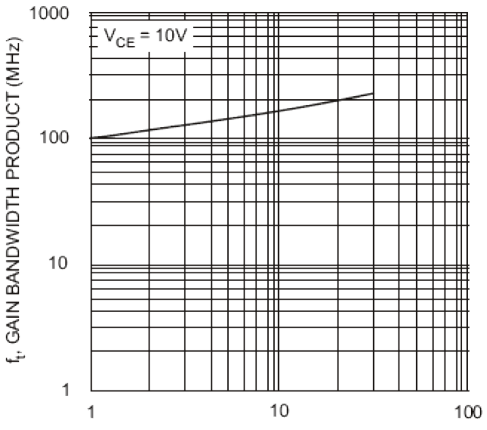
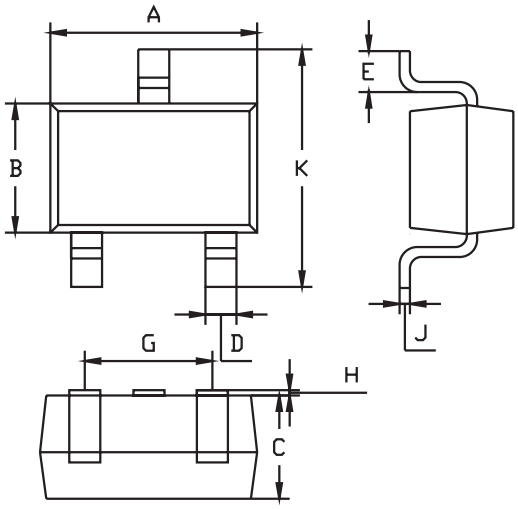


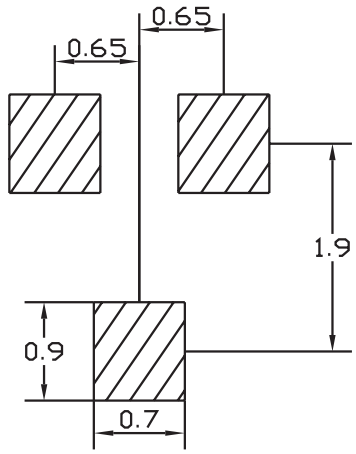
Fig. 5, Gain Bandwidth Product vs Collector Current

Package Outline



SOT-323		
Dim	**Min**	**Max**
A	1.8	2.2
B	1.15	1.35
C	1Typical	
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



Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, Bipolar, PNP, -150V, -600mA, SOT-323	MMST5401-7-F