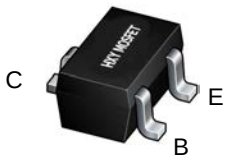
MMST5551-7-F

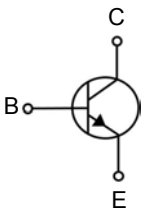
NPN Plastic-Encapsulate Transistors

Features

- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching



SOT-323



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMST5551-7-F	SOT-323	K4N	3000

Maximum Ratings (Ta=25°C unless otherwise noted)

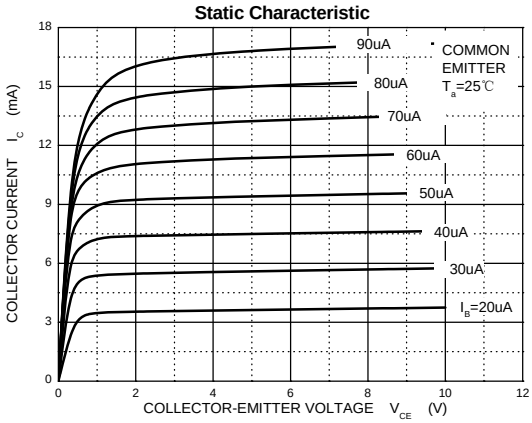
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	180	V
Collector - Emitter Voltage	V_{CEO}	160	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	600	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	625	°C/W
Storage Temperature Range	T_{stg}	-55 to 150	°C

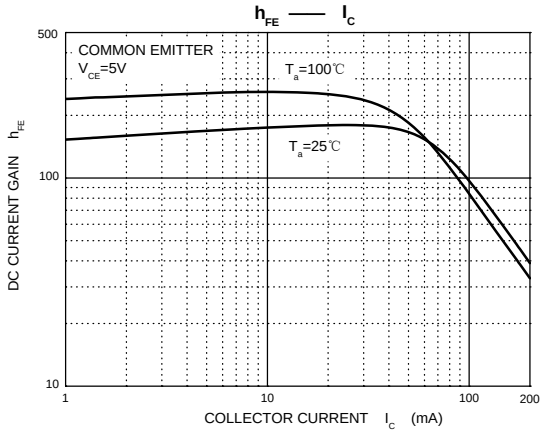
Electrical Characteristics (Ta=25°C unless otherwise specified)

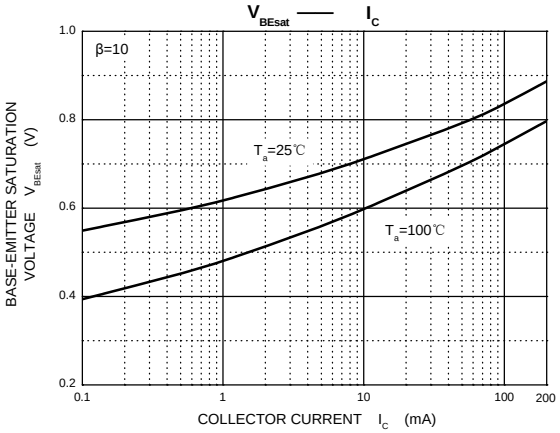
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	180		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=1mA, I_B=0	160		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6		V
Collector cut-off current	I_{CBO}	V_{CB}=120V, I_E=0		50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0		50	nA
DC current gain	h_{FE}	V_{CE}=5V, I_C=1mA	80		
		V_{CE}=5V, I_C=10mA	100	300	
		V_{CE}=5V, I_C=50mA	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50mA, I_B=5mA		0.2	V
		I_C=10mA, I_B=1mA		0.15	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=50mA, I_B=5mA		1	V
		I_C=10mA, I_B=1mA		1	V
Transition frequency	f_T	V_{CE}=10V,I_C=10mA , f=100MHz	100	300	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		6	pF

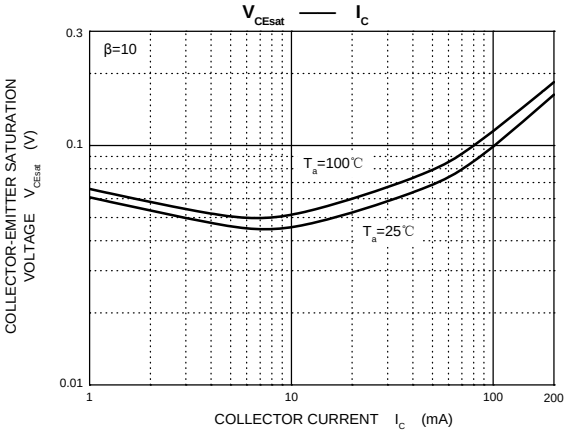
*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

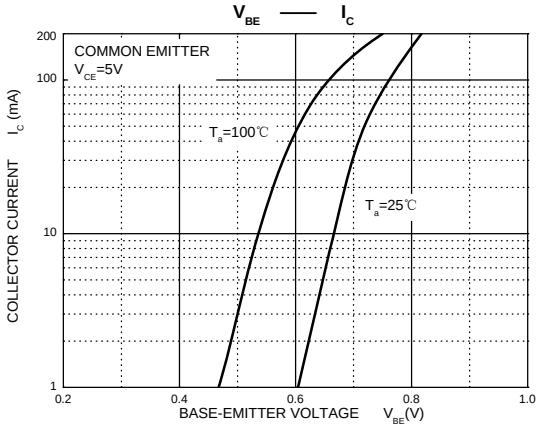
Typical Characteristics

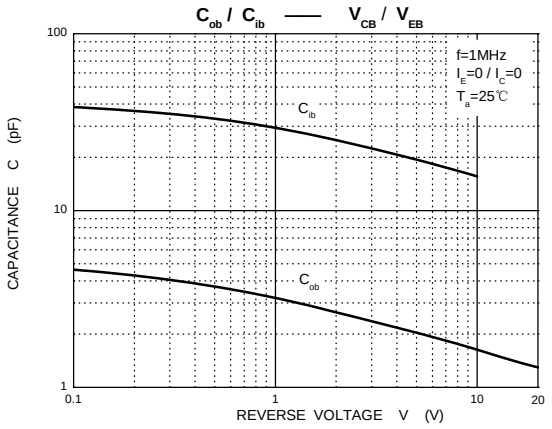


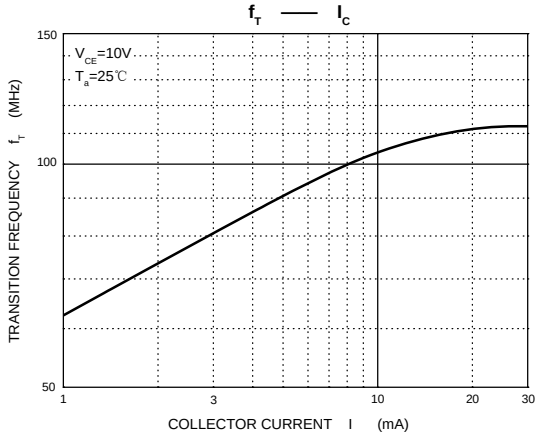


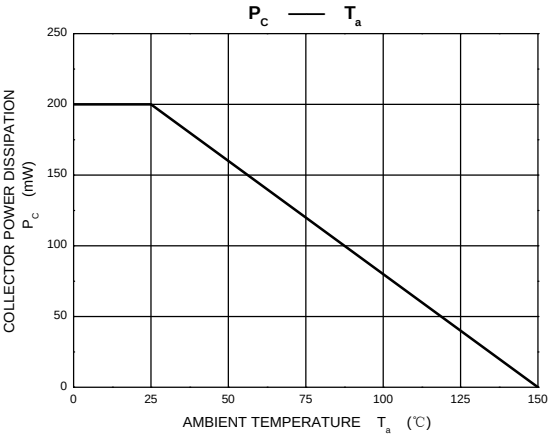




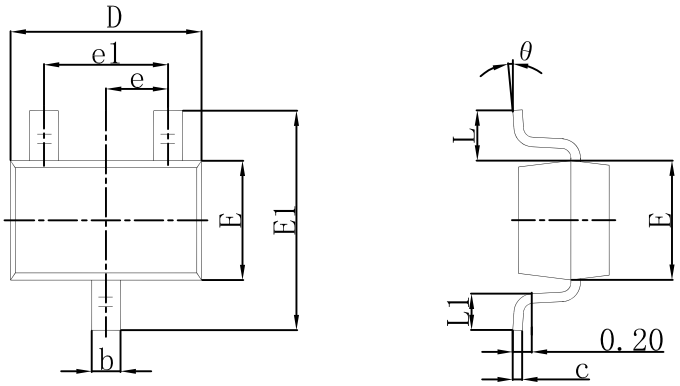


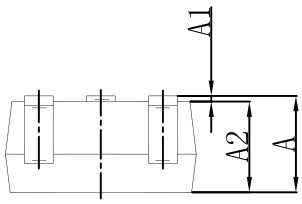






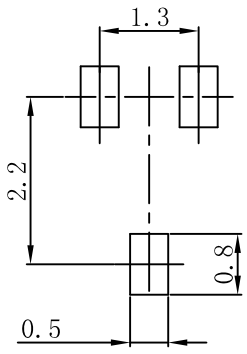
SOT-323 Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-323 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

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