



## Features

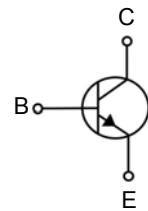
- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
PMST5550	SOT-323	K4N	3000



SOT-323



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	18	V
Collector - Emitter Voltage	V <sub>C0E</sub>	160	
Emitter - Base Voltage	V <sub>E0B</sub>	6	
Collector Current - Continuous	I <sub>C</sub>	600	mA
Collector Power Dissipation	P <sub>C</sub>	200	mW
Thermal Resistance From Junction To Ambient	R <sub>0JA</sub>	625	°C/W
Storage Temperature Range	T <sub>stg</sub>	-55 to 150	°C

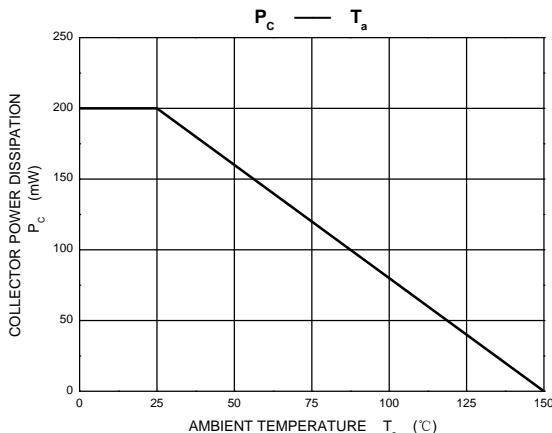
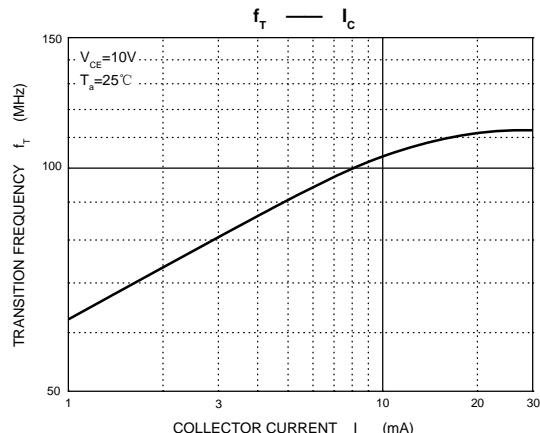
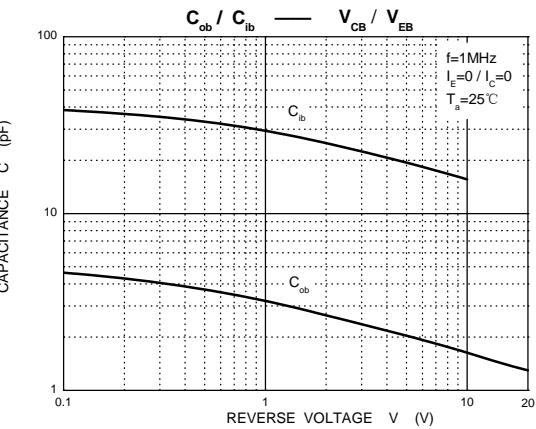
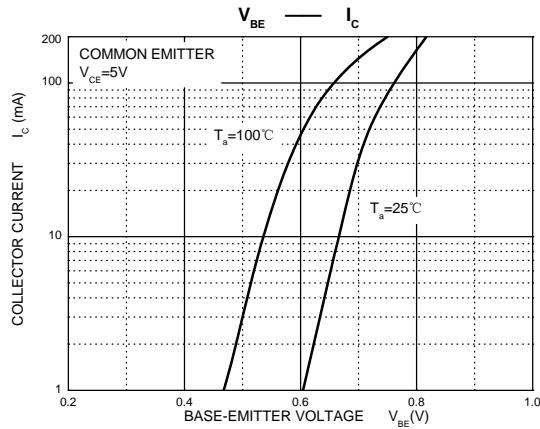
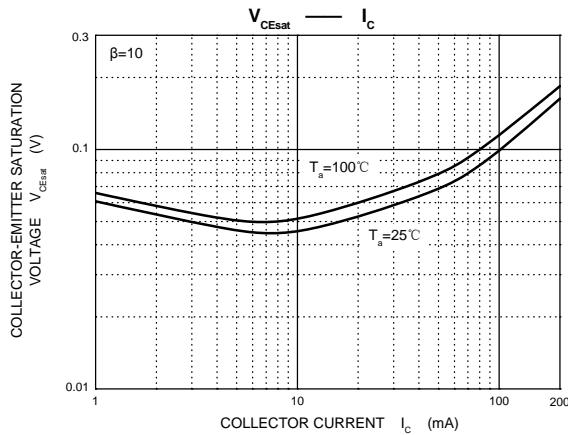
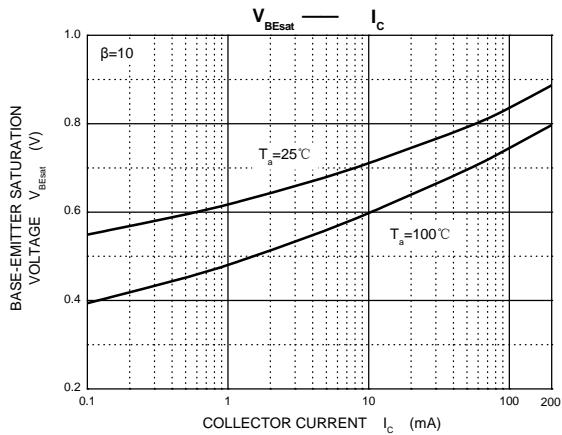
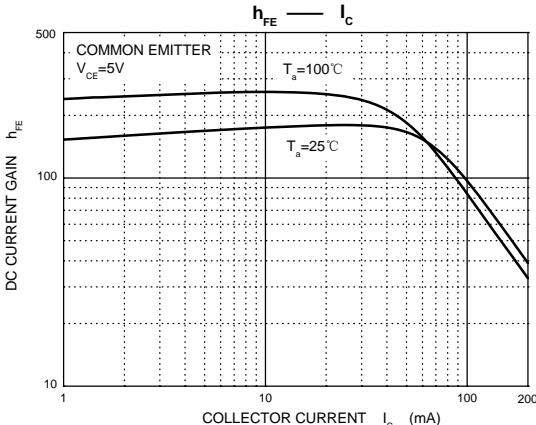
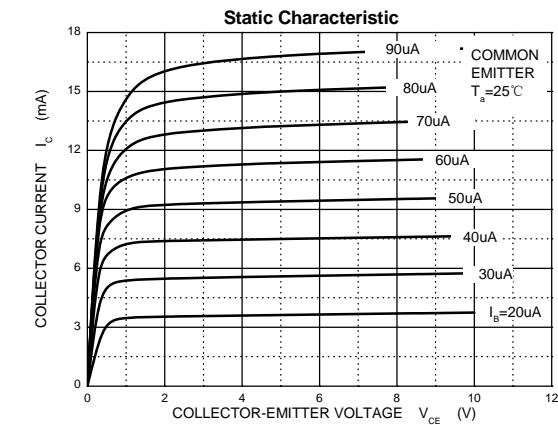
## Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CB0</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	180		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub> *	I <sub>C</sub> =1mA, I <sub>B</sub> =0	160		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	6		V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =120V, I <sub>E</sub> =0		50	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0		50	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	80		
		V <sub>CE</sub> =5V, I <sub>C</sub> =10mA	100	300	
		V <sub>CE</sub> =5V, I <sub>C</sub> =50mA	30		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA		0.2	V
		I <sub>C</sub> =10mA, I <sub>B</sub> =1mA		0.15	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA		1	V
		I <sub>C</sub> =10mA, I <sub>B</sub> =1mA		1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA, f=100MHz	100	300	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		6	pF

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

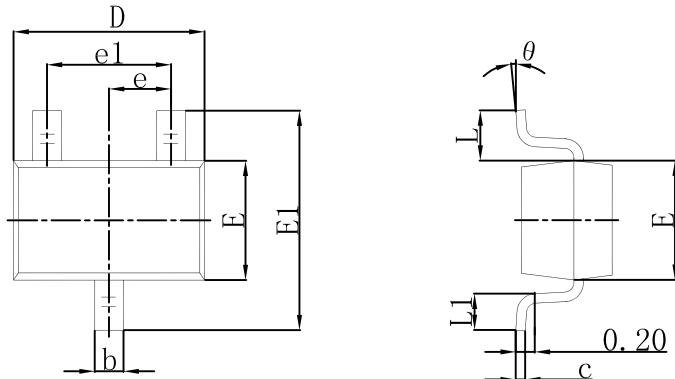


## Typical Characteristics



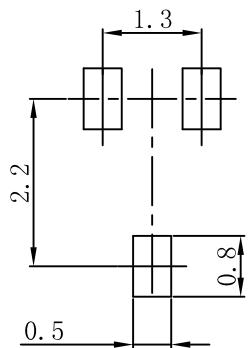


### SOT-323 Package Outline Dimensions



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:  $\pm 0.05$ mm.  
3. The pad layout is for reference purposes only.



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