

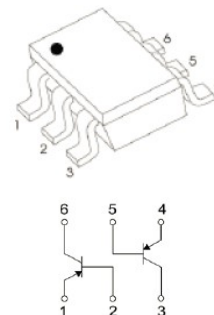
Features

- ◆ Epitaxial planar die construction
- ◆ Ideal for low power amplification and switching
- ◆ High Stability and High Reliability

Mechanical Data

- ◆ SOT-363 Small Outline Plastic Package
- ◆ Epoxy UL: 94V-0
- ◆ Mounting Position: Any

Circuit and Marking Information



Marking: K3N

Maximum Ratings & Thermal Characteristics (T_A=25°C)

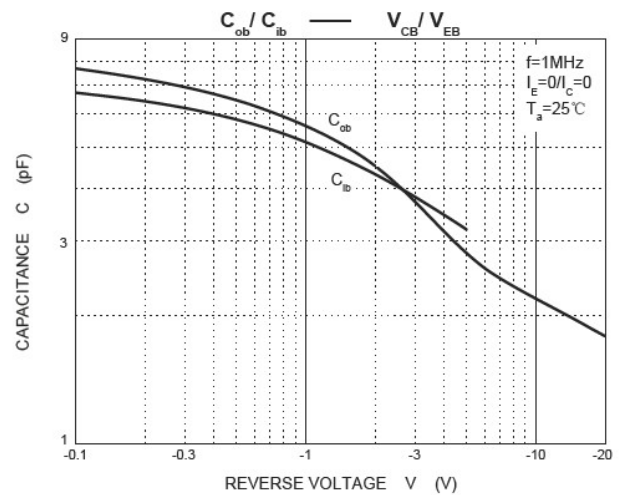
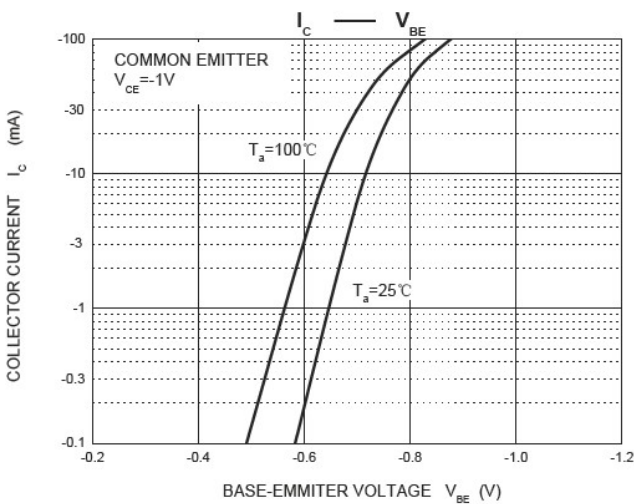
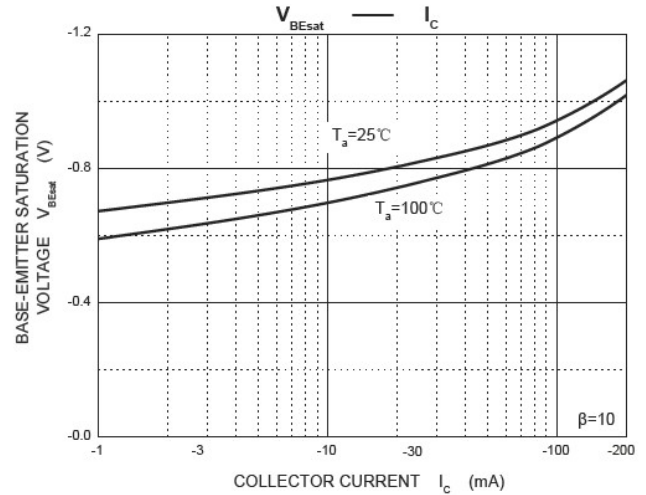
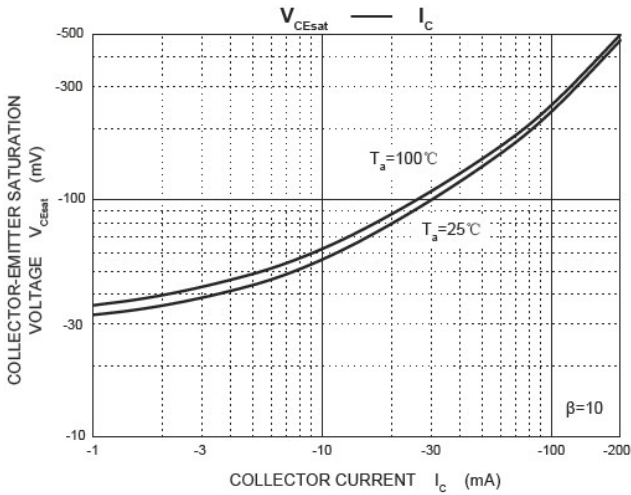
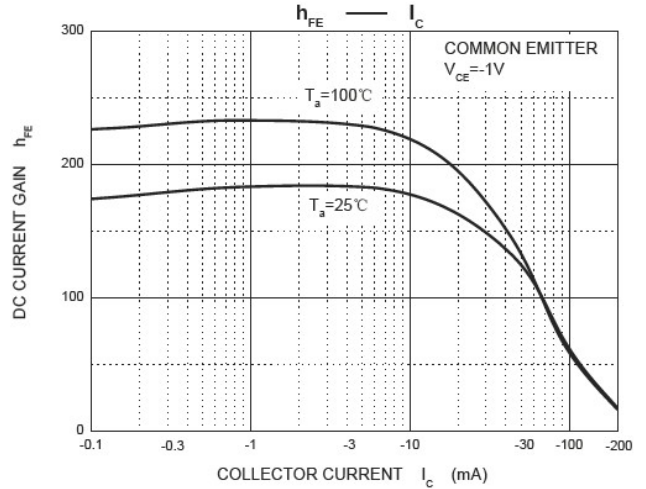
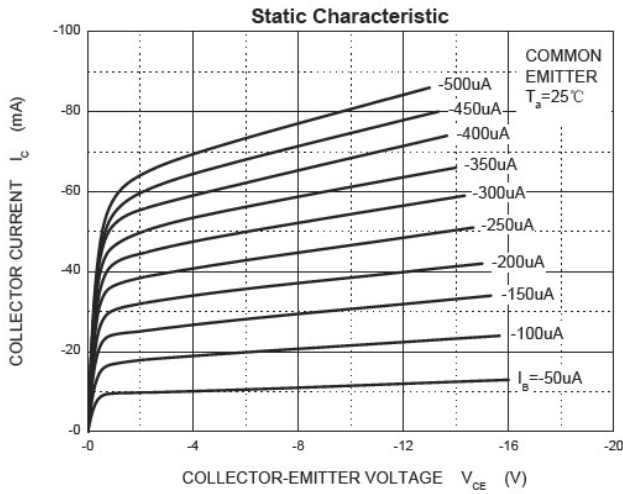
参数 Parameters	符号 Symbol	数值 Value	单位 Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter -Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-200	mA
Collector Power Dissipation	P _C	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55-+150	°C
Thermal resistance From junction to ambient	R _{θJA}	625	°C/W

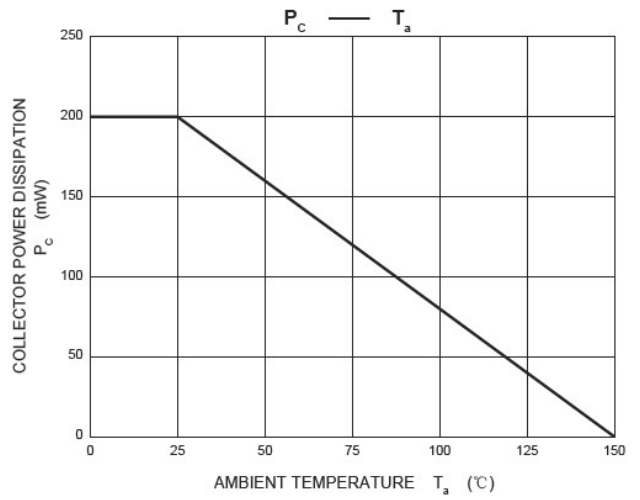
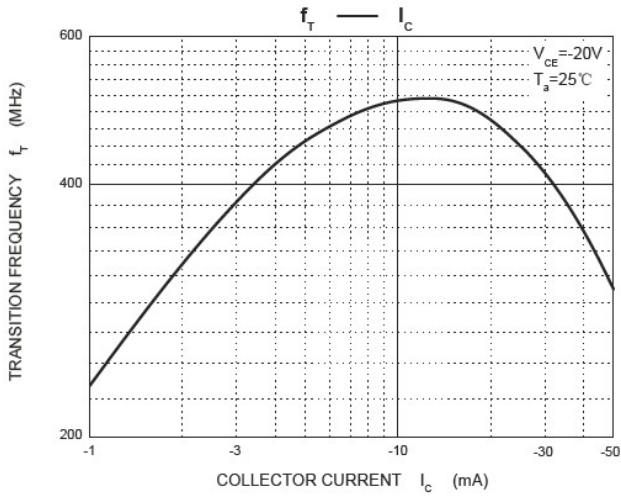
Electrical Characteristics (T_A=25°C)

参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits		单位 Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	I _C =-10μA, I _E =0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =-1mA, I _B =0	-40		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =-10μA, I _C =0	-5		V
Collector cut-off current	I _{CEX}	V _{CE} =-30V, V _{EB(off)} =-3V		-50	nA
Base cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0		-50	nA
DC current gain	hFE(1)	V _{CE} =-1V, I _C =-0.1mA	60		
	hFE(2)	V _{CE} =-1V, I _C =-1mA	80		
	hFE(3)	V _{CE} =-1V, I _C =-10mA	100	300	
	hFE(4)	V _{CE} =-1V, I _C =-50mA	60		
	hFE(5)	V _{CE} =-1V, I _C =-100mA	30		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-10mA, I _B =-1mA		-0.25	V
		I _C =-50mA, I _B =-5mA		-0.40	V
Base -emitter saturation voltage	V _{BE(sat)}	I _C =-10mA, I _B =-1mA	-0.65	-0.85	V
		I _C =-50mA, I _B =-5mA		-0.95	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-10mA, f=100MHz	250		MHz
Collector output capacitance	C _{ob}	V _{CB} =-5V, I _E =0, f=1MHz		4.5	pF
Noise figure	NF	V _{EB} =-5V, I _E =0, f=1MHz		4	dB
Delay time	t _d	V _{CC} =-3V, V _{BE(off)} =-0.5V, I _C =-10mA, I _{B1} =-1mA		35	nS
Rise time	t _r			35	nS
Storage time	t _s			225	nS
Fall time	t _f	V _{CC} =-3V, I _C =-10mA, I _{B1} =I _{B2} =-1mA		75	nS

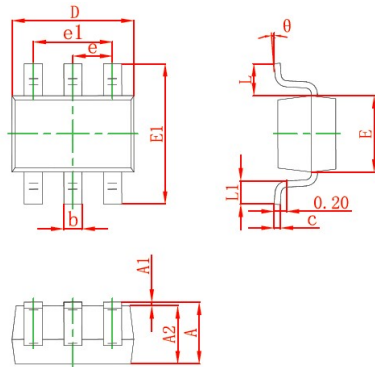
*Pulse test: pulse width≤300us,duty cycle≤2.0%

Typical characteristics (T_A=25°C)



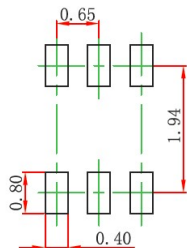


SOT-363 Package Outline Drawing



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
theta	0°	8°

Suggested Land Pattern



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