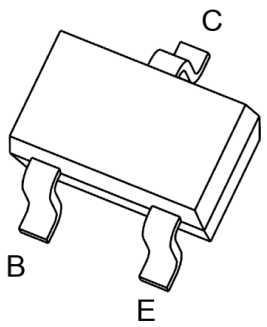
MMST3906 Transistor(PNP)

SOT-323



Feature

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMST3904)

Marking:K5N

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

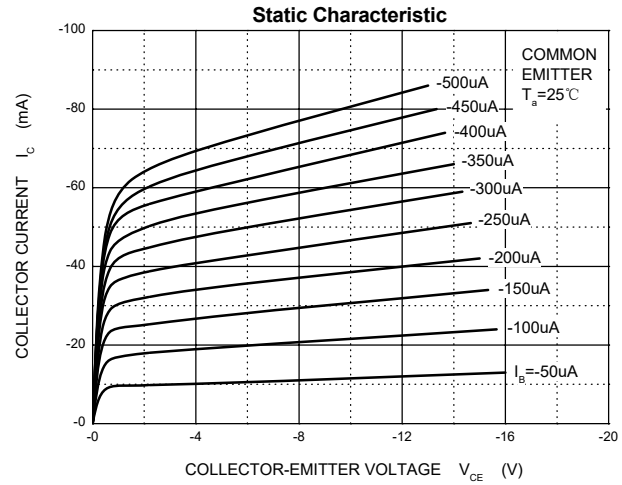
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.2	A
Power Dissipation	P_d	0.2	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃

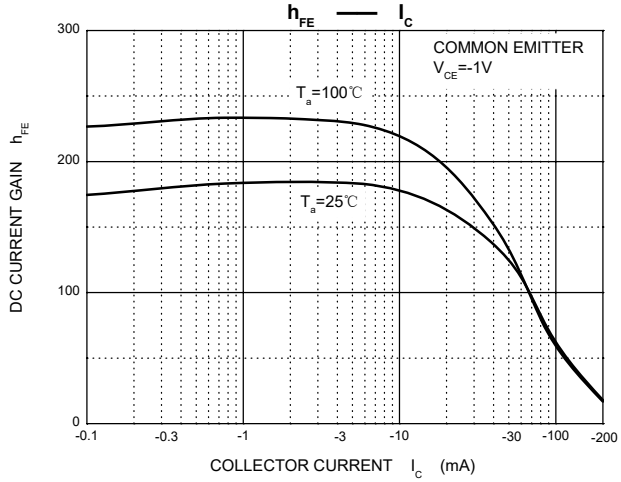
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise noted)

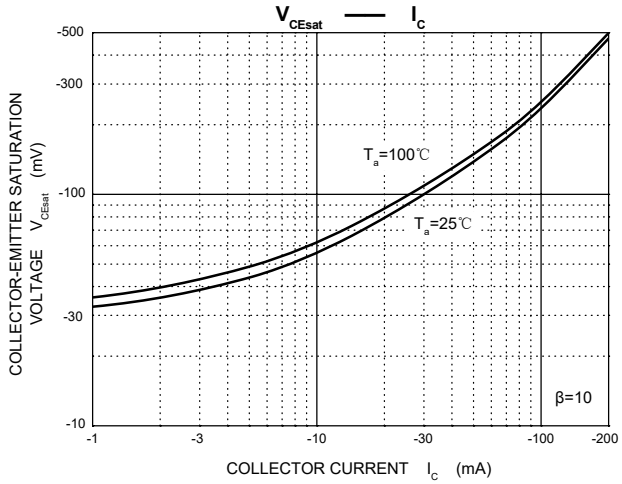
Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$*	I_C=-10μA ,I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=-1mA , I_B=0	-40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$*	I_E=-10μA,I_C=0	-5		V
Collector cut-off current	I_{CBO}*	V_{CB}=-40V, I_E=0		-100	nA
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		-100	nA
DC current gain	h_{FE1}*	V_{CE}=-1V, I_C=-10mA	100	300	
	h_{FE2}*	V_{CE}=-1V, I_C=-50mA	60		
	h_{FE3}*	V_{CE}=-2V, I_C=-100mA	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	I_C=-50mA, I_B= -5mA		-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$ *	I_C=-50mA, I_B= -5mA		-0.95	V
Transition frequency	f_T	V_{CE}=-20V, I_C=-10mA, f=100MHz	250		MHZ
Delay Time	td	V_{CC} =-3.0V, I_C = -10mA,		35	ns
Rise Time	tr	$V_{BE(off)}$ = 0.5V, I_{B1} = -1.0mA		35	ns
Storage Time	ts	V_{CC} = -3.0V, I_C = -10mA,		225	ns
Fall Time	tf	I_{B1} = I_{B2} = -1.0mA		75	ns

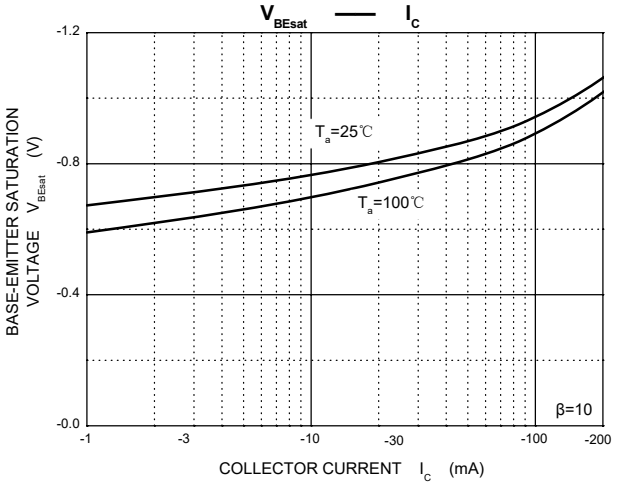
*Pulse test: pulse width ≤300us, duty cycle≤2.0%.

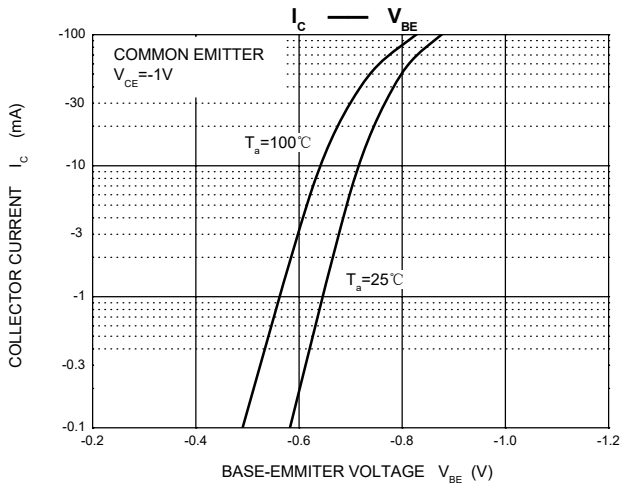
Typical Characteristics

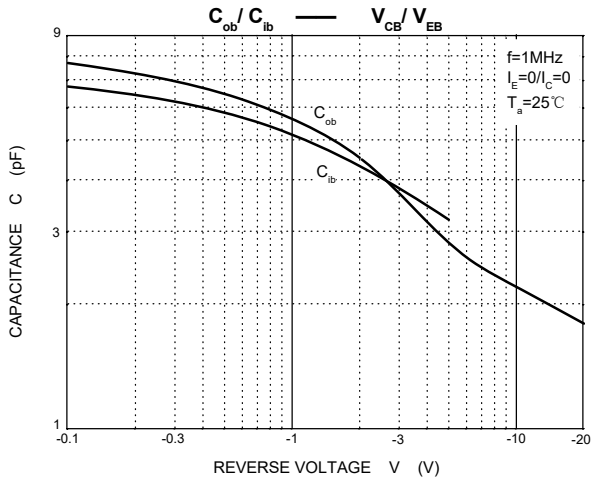




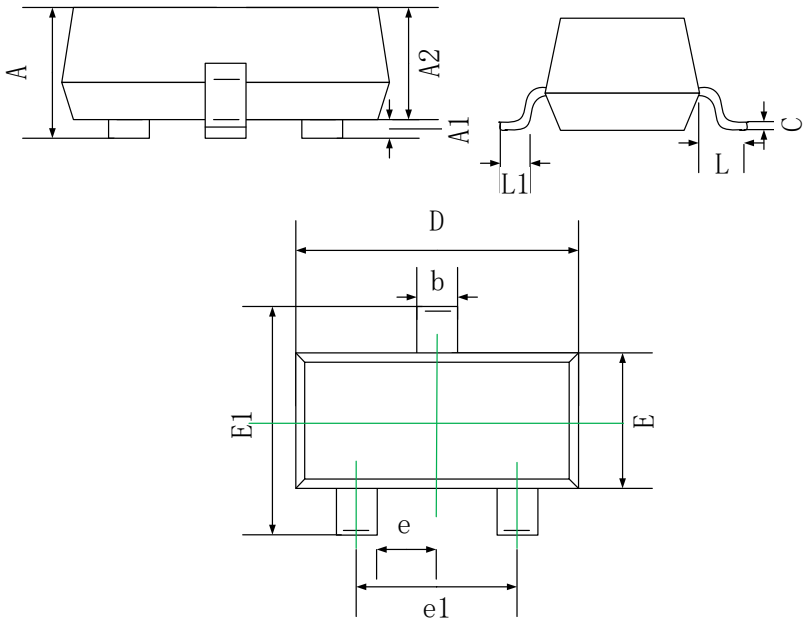






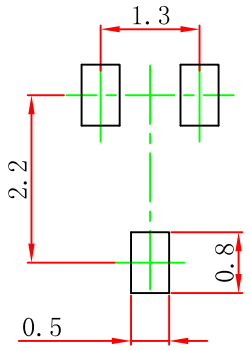


SOT-323 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.10
A1	0.00	0.10
A2	0.90	1.00
b	0.30	0.50
c	0.10	0.15
D	2.00	2.20
E	1.15	1.35
E1	2.15	2.40
e	0.650 TYP.	
e1	1.20	1.40
L	0.525 REF.	
L1	0.26	0.46

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.