MMDT3906

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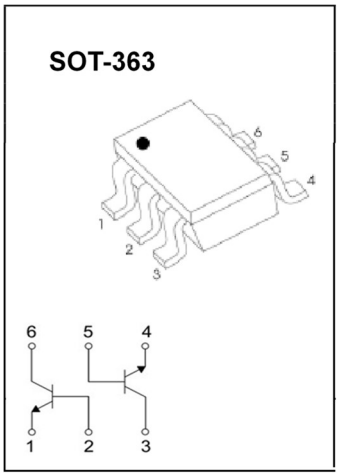
SOT-363 Plastic-Encapsulate Transistors

General description
SOT-363 Plastic-Encapsulate Transistors



MARKING : K3N

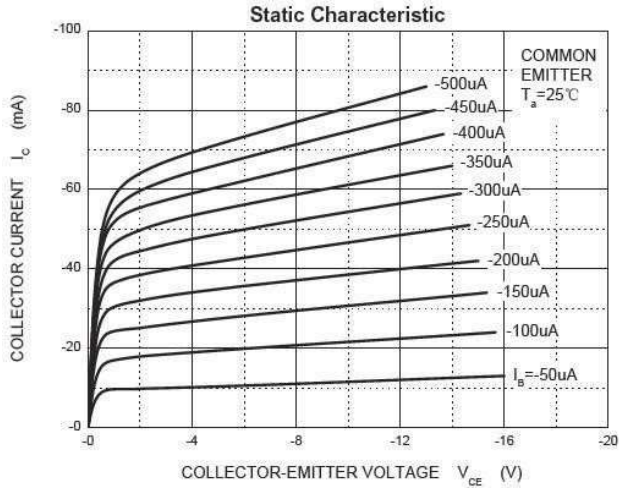
FEATURES
- DUAL TRANSISTOR (PNP+PNP)
- Complementary to MMDT3904
- Ideal for low power amplification and switching

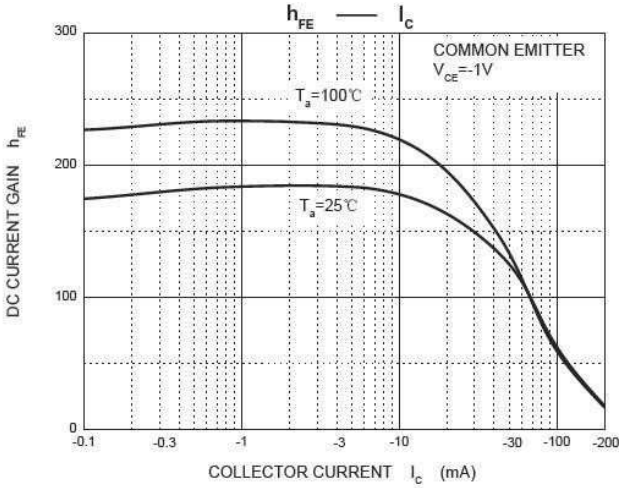
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-200	A
P_C	Collector Power Dissipation	200	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-+150	℃

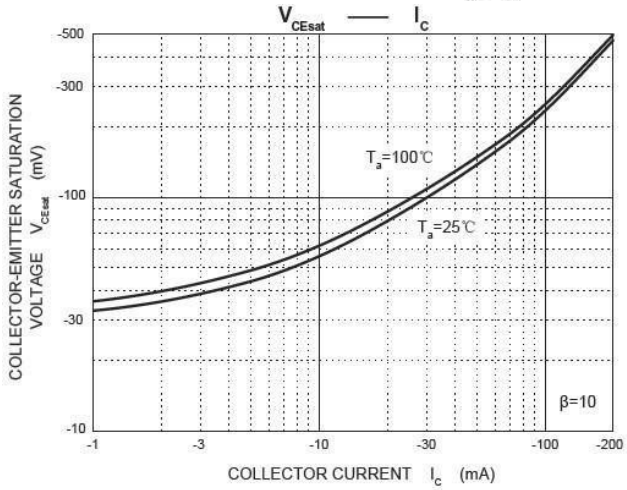
Absolute Maximum Ratings(Ta=25℃ unless otherwise specified)

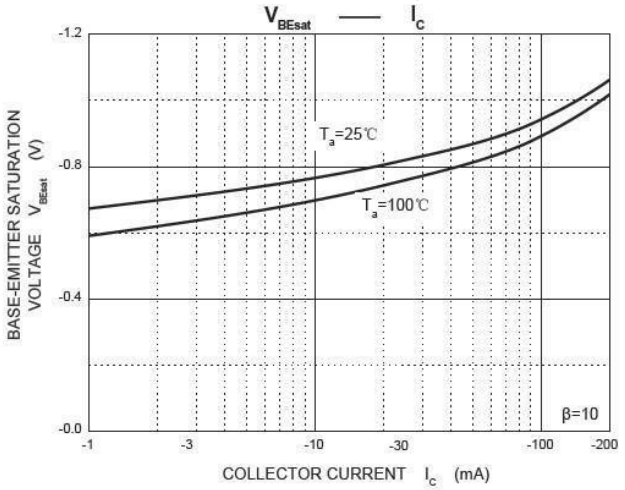
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=10μA,IE=0	-40			V
Collector-emitter breakdown voltage	V(BR)CEO	IC=1mA,IB=0	-40			V
Emitter-base breakdown voltage	V(BR)EBO	IE=10μA,IC=0	-5			V
Emitter cut-off current	IEBO	VEB=-5V,IC=0			-50	nA
Collector cut-off current	ICEX	VCE=-30V,VBE(off)=-3V			-50	nA
DC current gain	hFE(1)	VCE=-1V,IC=-0.1mA	60			
	hFE(2)	VCE=-1V,IC=-1mA	80			
	hFE(3)	VCE=-1V,IC=-10mA	100		300	
	hFE(4)	VCE=-1V,IC=-50mA	60			
	hFE(5)	VCE=-1V,IC=-100mA	30			
Collector-emitter saturation voltage	VCE(sat)1	IC=-10mA,IB=-1mA			-0.25	V
	VCE(sat)2	IC=-50mA,IB=-5mA			-0.4	V
Base-emitter saturation voltage	VBE(sat)1	IC=-10mA,IB=-1mA	-0.65		-0.85	V
	VBE(sat)2	IC=-50mA,IB=-5mA			-0.95	V
Transition frequency	fT	VCE=-20V,IC=-10mA,f=100MHz	250			MHz
Delay time	td	VCC=3V, VBE(off)=-0.5V IC=10mA , IB1=-IB2= 1mA			35	nS
Rise time	tr				35	nS
Storage time	ts	VCC=3V, IC=10mA IB1=-IB2=1mA			225	nS
Fall time	tf				75	nS

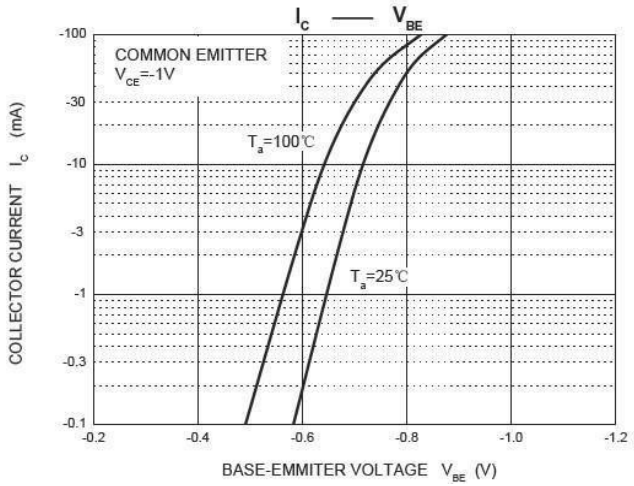
MMDT3906 Typical characteristics

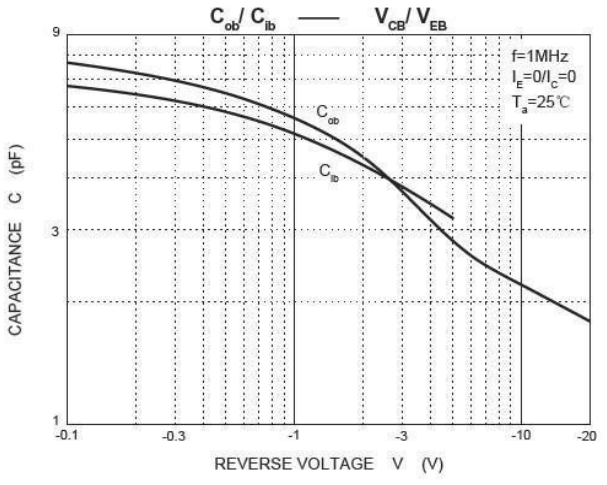


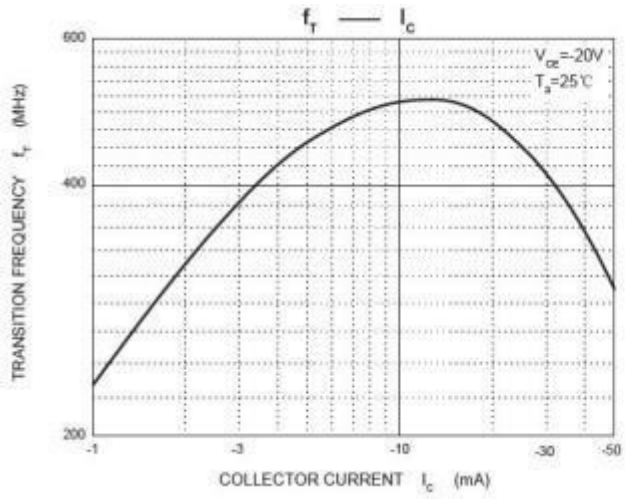


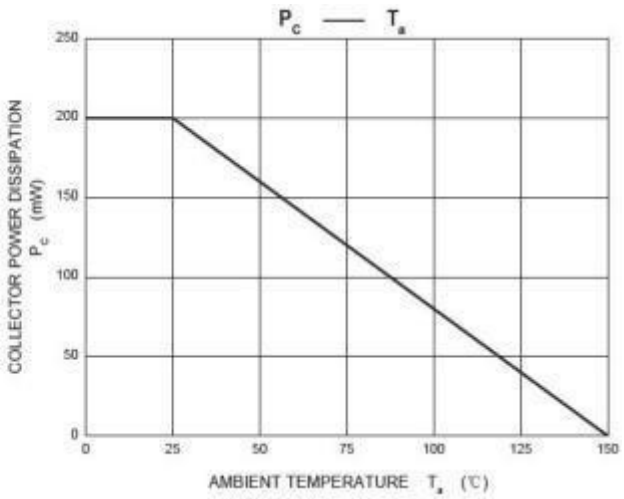




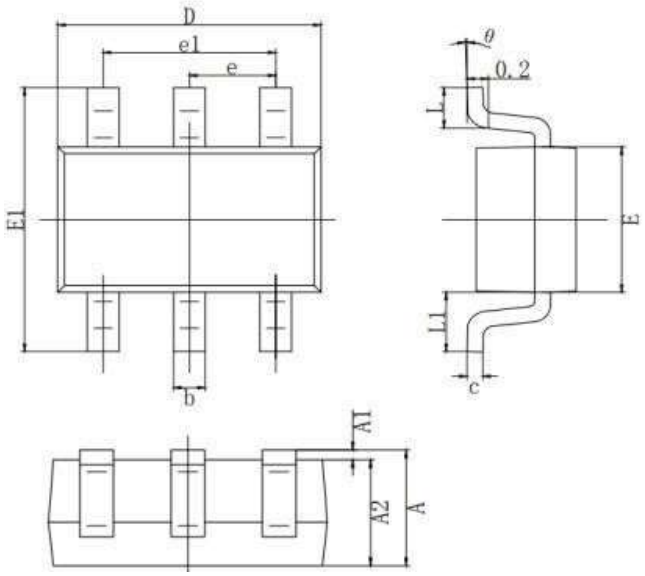






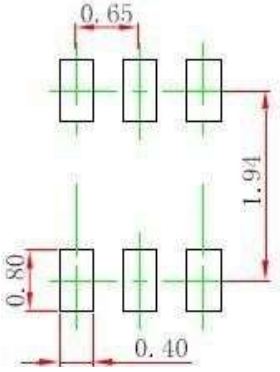


SOT-363 PACKAGE OUTLINE Plastic surface mounted package



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

Precautions: PCB Design
Recommended land dimensions for SOT-363. Electrode patterns for PCBs



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

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