

SOT-363 Plastic-Encapsulate Transistors

Features

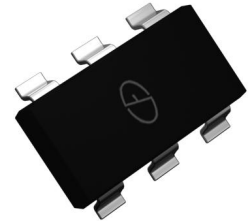
- Complementary to MMDT3906.
- 200mW; Power Dissipation of 200mW
- High Stability and High Reliability

Mechanical Data

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



RoHS
COMPLIANT

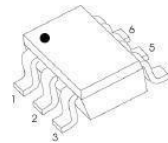


Marking: K6N

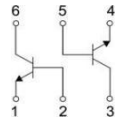
SOT-363

Pin definition

Equivalent circuit



1. Emitter1
2. Base1
3. Collector2
4. Emitter2
5. Base2
6. Collector1



Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

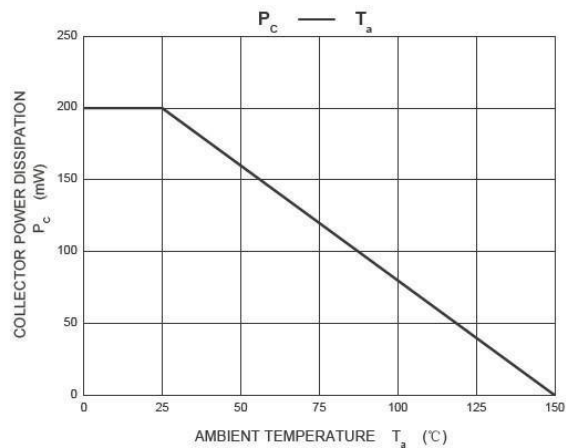
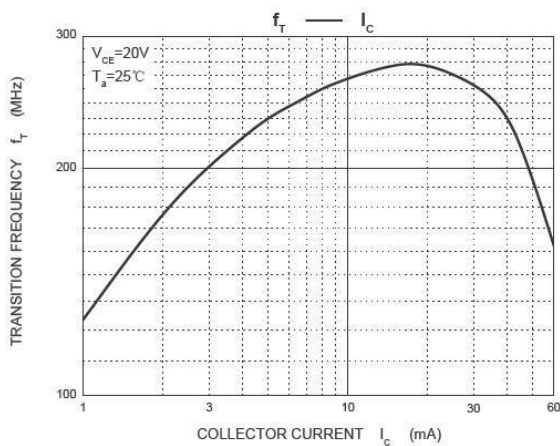
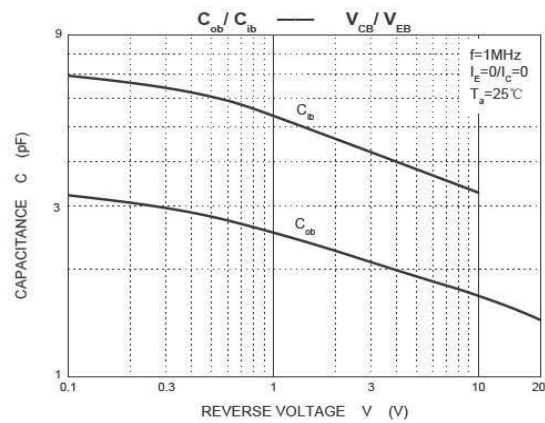
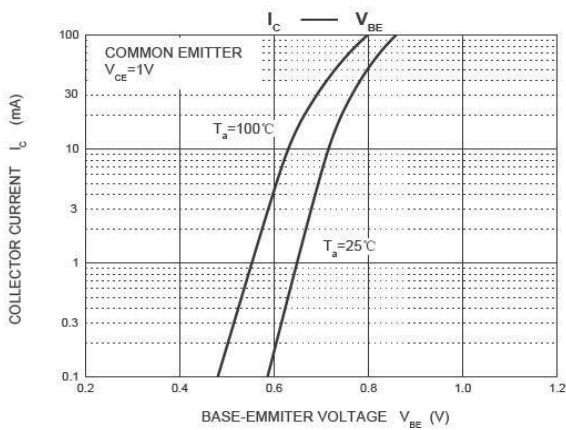
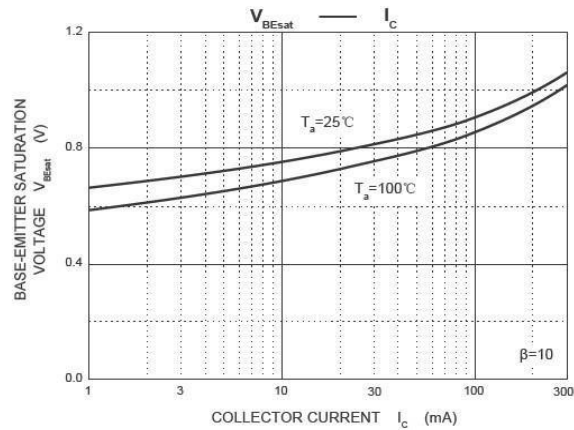
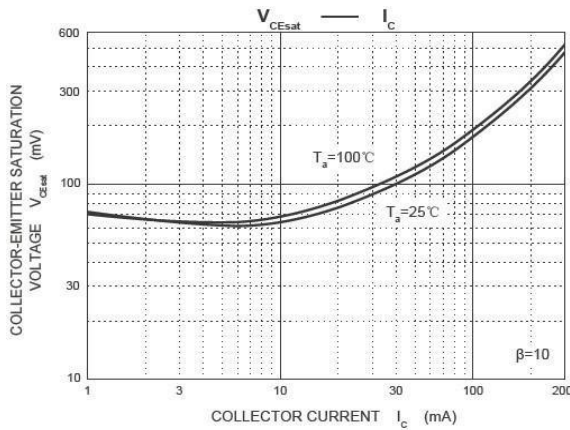
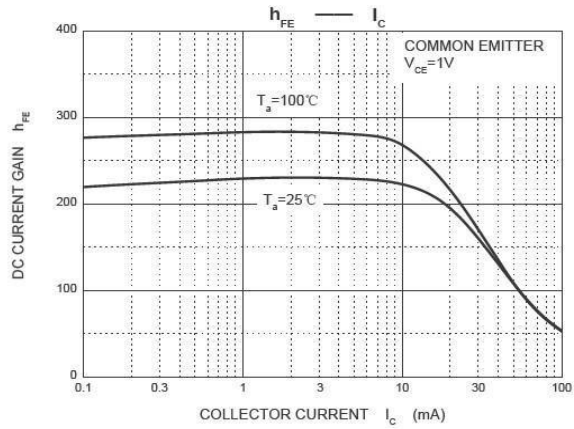
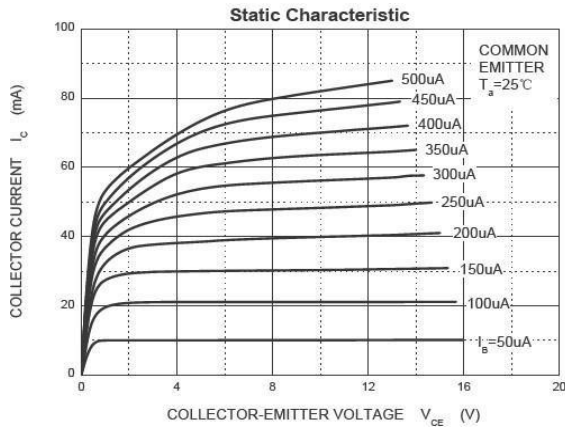
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter -Base Voltage	V _{EBO}	6	V
Collector Current-Continuous	I _C	200	mA
Collector Power Dissipation	P _C	200	mW
Operating junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55-+150	°C
Thermal Resistance from Junction to Ambient	R _{θJA}	625	°C/W

Electrical Specifications (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	I _C =10μA, I _E =0	60			V
Collector-emitter breakdown voltage	V(BR)CEO	I _C =1mA, I _B =0	40			
Emitter-base breakdown voltage	V(BR)EBO	I _E =10μA, I _C =0	5			
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0			50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			50	nA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =0.1mA	40			
	h _{FE(2)}	V _{CE} =1V, I _C =1mA	70			
	h _{FE(3)}	V _{CE} =1V, I _C =10mA	100		300	
	h _{FE(4)}	V _{CE} =1V, I _C =50mA	60			
	h _{FE(5)}	V _{CE} =1V, I _C =100mA	30			
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =10mA, I _B =1mA			0.2	V
	V _{CE(sat)2}	I _C =50mA, I _B =5mA			0.3	
Collector-emitter saturation voltage	V _{BE(sat)1}	I _C =10mA, I _B =1mA	0.65		0.85	
	V _{BE(sat)2}	I _C =50mA, I _B =5mA			0.95	
Transition frequency	f _T	V _{CE} =20V, I _C =10mA, f=100MHz	300			MHz
Delay time	t _d	V _{CC} =3V, V _{BE(off)} =-0.5V, I _C =10mA, I _{B1} =-I _{B2} =1mA			35	nS
Rise time	t _r				35	
Storage time	t _s	V _{CC} =3V, I _C =10mA, I _{B1} =-I _{B2} =1mA			200	
Fall time	t _f				50	

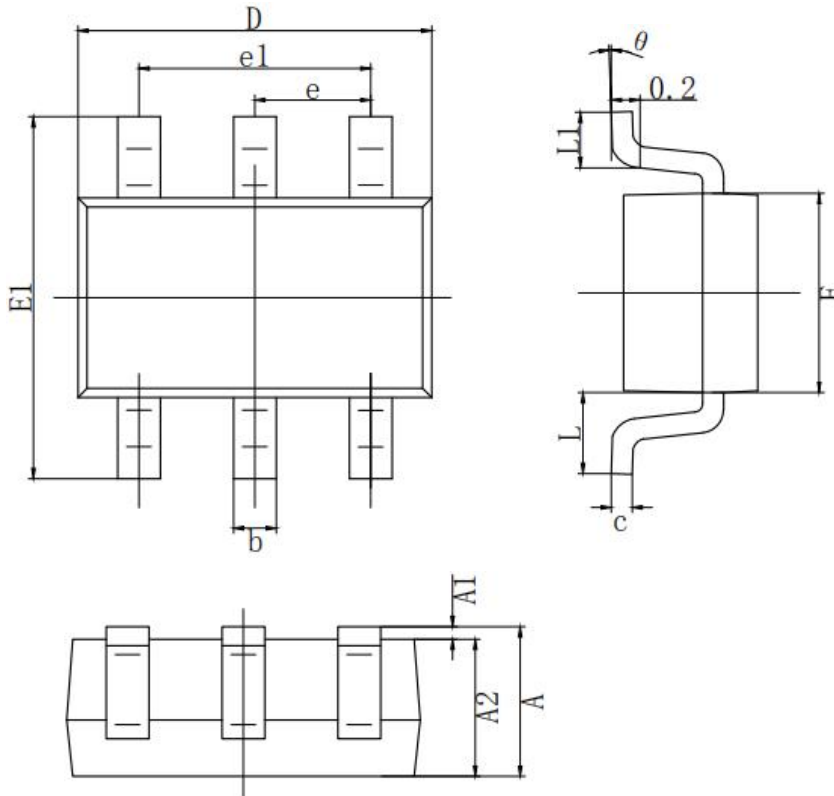
Ratings and Characteristics Curves

($T_a = 25^\circ\text{C}$ unless otherwise noted)



Package Outline Dimensions

millimeters



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°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2019.04.16	First issue

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