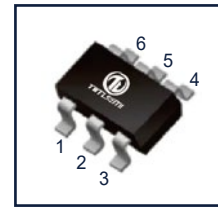
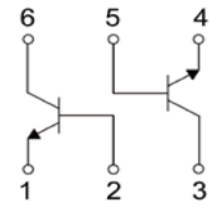


Features

- Epitaxial planar die construction
- Ideal for low power amplification and switching



SOT-363



Equivalent Circuit

Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	60	V
V _{CE0}	Collector-Emitter Voltage	40	V
V _{EB0}	Emitter-Base Voltage	6	V
I _c	Collector Current	0.2	A
P _c	Collector Power Dissipation	0.2	W
T _J , T _{stg}	Operation Junction And Storage Temperature Range	-55 ~ +150	℃

Electrical Characteristics (T_A=25℃ unless otherwise specified)

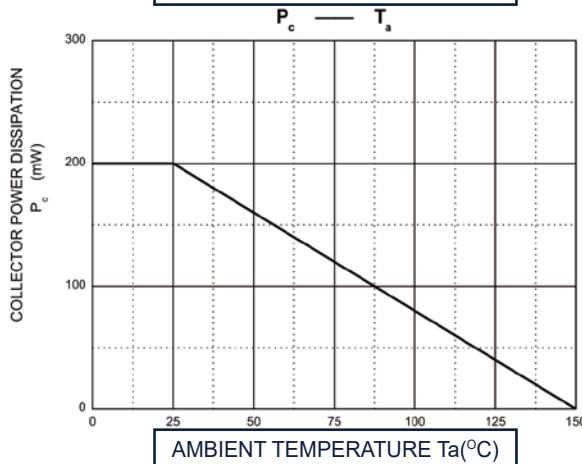
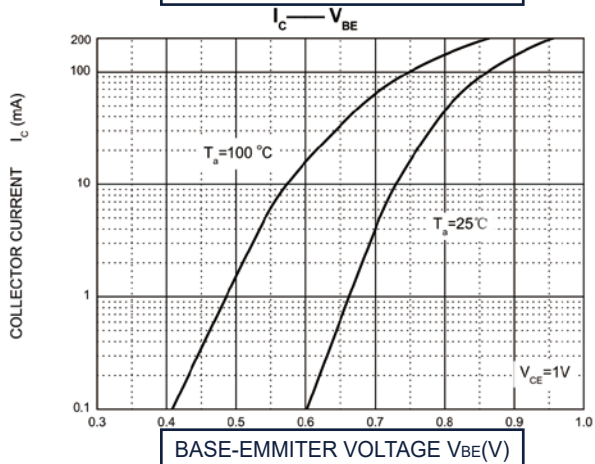
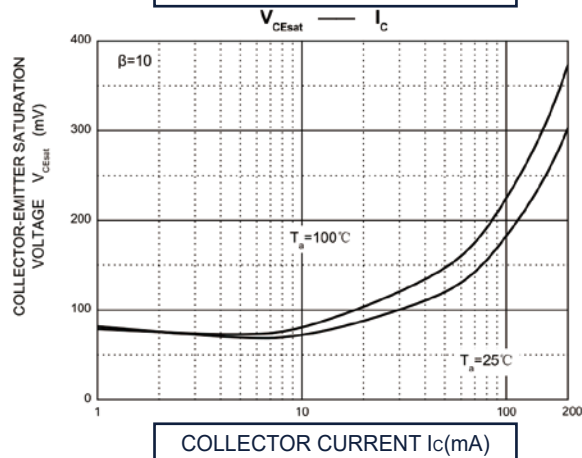
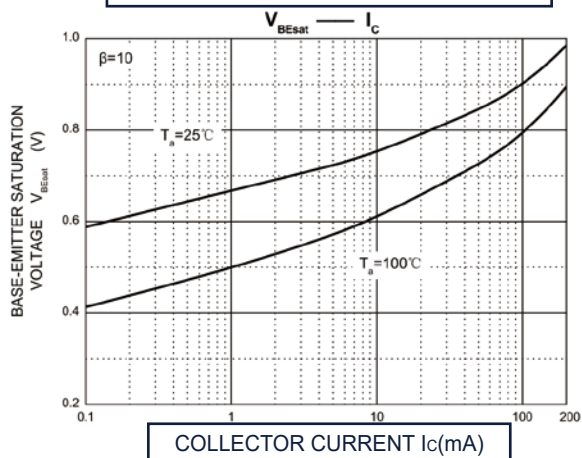
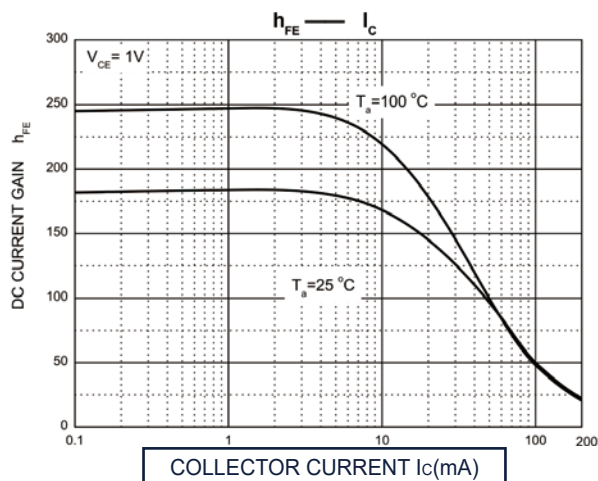
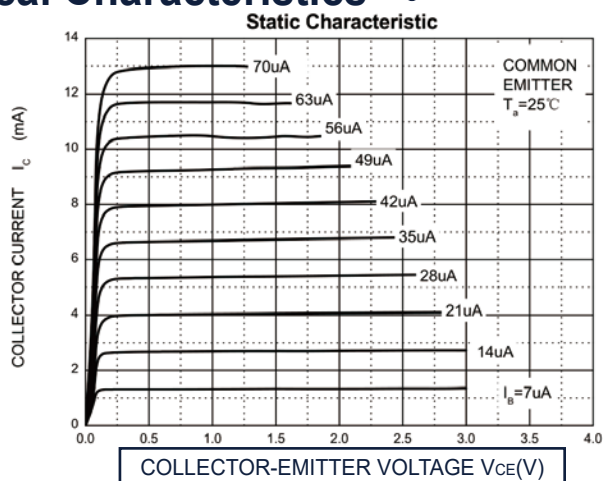
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _c =10μA, I _E =0	60			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _c =1mA, I _B =0	40			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA, I _c =0	6			V
I _{CBO}	Collector cut-off current	V _{CB} =30V, I _E =0			0.05	μA
I _{EBO}	Emitter cut-off current	V _{EB} =5V, I _c =0			0.05	μA
I _{CEX}	Collector cut-off current	V _{CE} =30V, V _{EB(off)} =3V			0.05	μA
h _{FE(1)}	DC current gain	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			
V _{CE(sat)1}	Collector-emitter saturation voltage	I _c =10mA, I _B =1mA			0.2	V
V _{CE(sat)2}		I _c =50mA, I _B =5mA			0.3	V
V _{BE(sat)1}	Base-emitter saturation voltage	I _c =10mA, I _B =1mA	0.65		0.85	V
V _{BE(sat)2}	Base-emitter saturation voltage	I _c =50mA, I _B =5mA			0.95	V
f _T	Transition frequency	V _{CE} =20V, I _c =10mA, f=100MHz	300			MHz
C _{ob}	Output Capacitance	V _{CB} =5V, I _E =0A, f=1MHz			4	pF
NF	Noise Figure	V _{CE} =5V, I _c =0.1mA, f=1KHz, R _S =1KΩ			5	dB
t _d	Delay time	V _{CC} =3V, V _{BE(off)} =-0.5V I _c =10mA, I _{B1} =-I _{B2} =1mA			35	nS
t _r	Rise time				35	nS
t _s	Storage time	V _{CC} =3V, I _c =10mA, I _{B1} =-I _{B2} =1mA			200	nS
t _f	Fall time				50	nS

Ordering information

Product ID	Pack	Naming rule	Marking	hFE(1)	Qty(PCS)
MMDT3904	SOT-363	MMDT3904 ↓ 产品名称 product name	K6N	100-300	3000

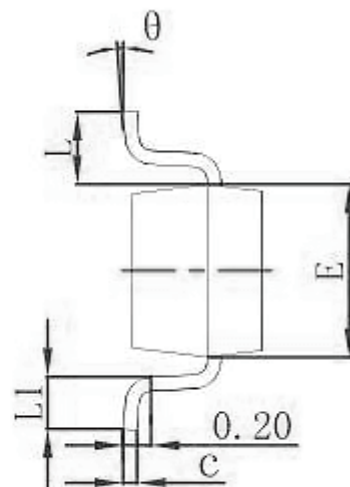
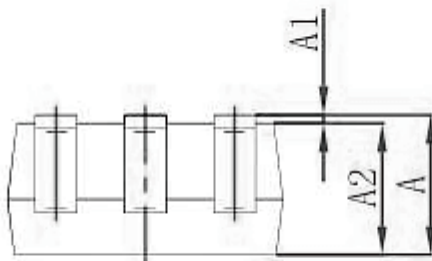
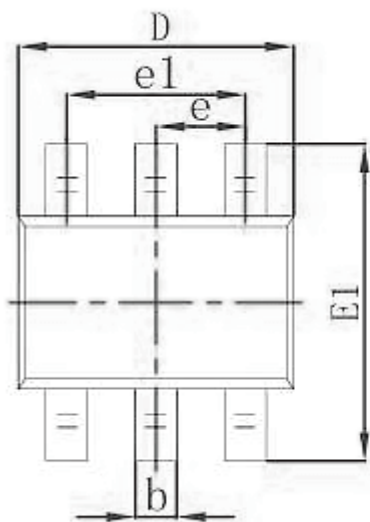


Typical Characteristics





SOT-363 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	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	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°