

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

MMDT3906V-MS

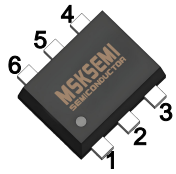
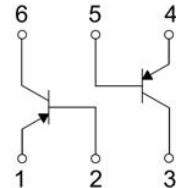

Product specification

DUAL TRANSISTOR (PNP+PNP)

FEATURE

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

Reference News

SOT-563	PIN Configuration	Marking
		

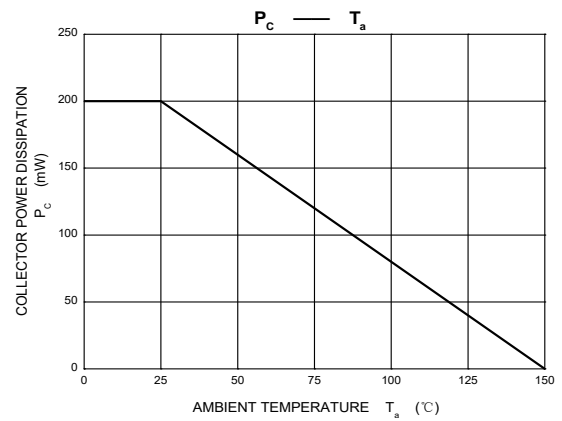
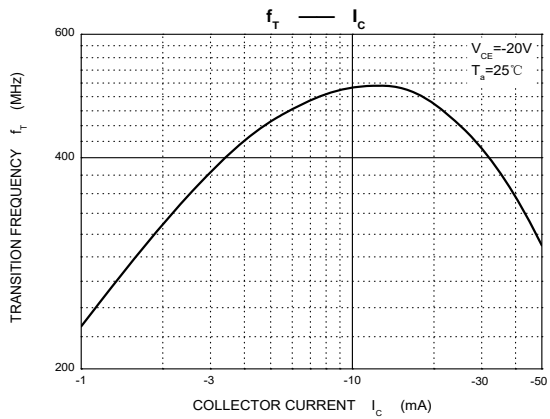
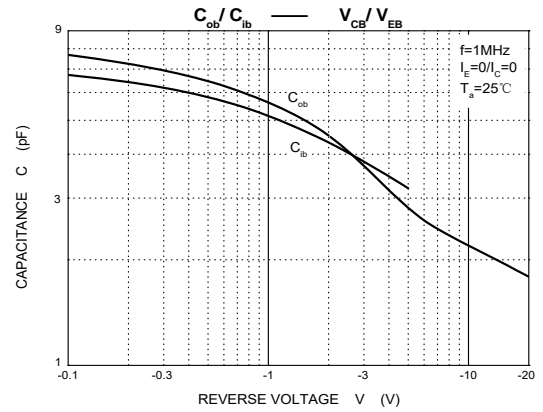
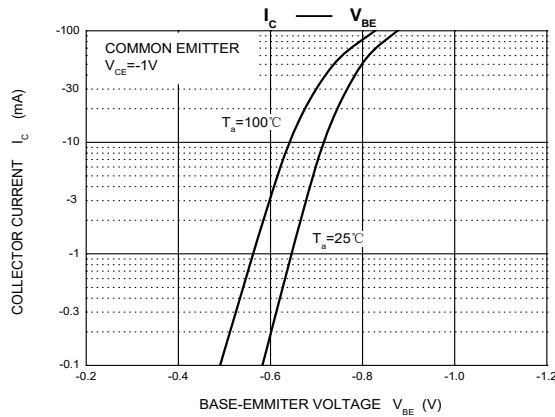
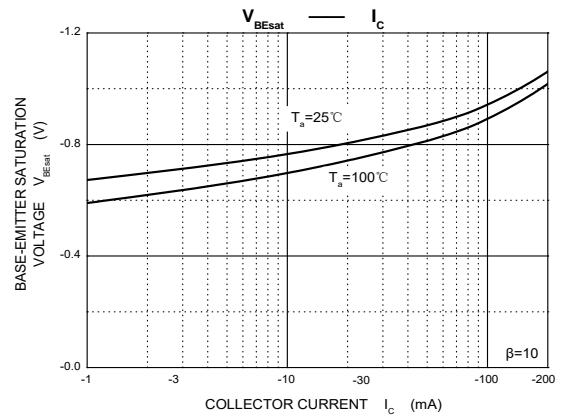
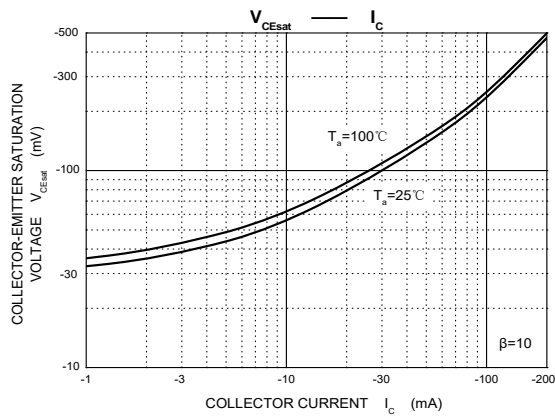
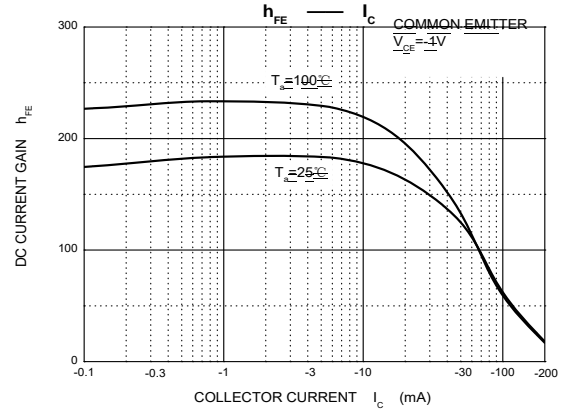
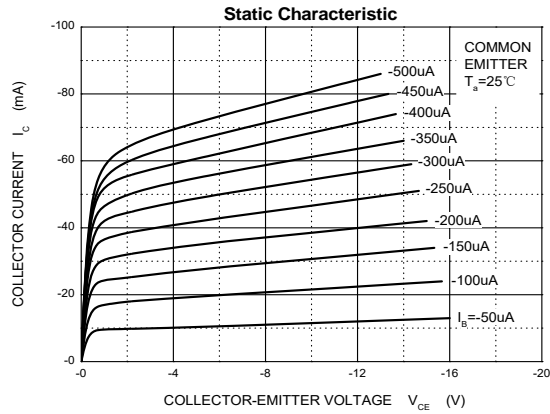
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-40	V
V _{CEO}	Collector-Emitter Voltage	-40	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.2	A
P _C	Collector Power Dissipation	0.2	W
R _{θJA}	Thermal Resistance. Junction to Ambient Air	625	°C/W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

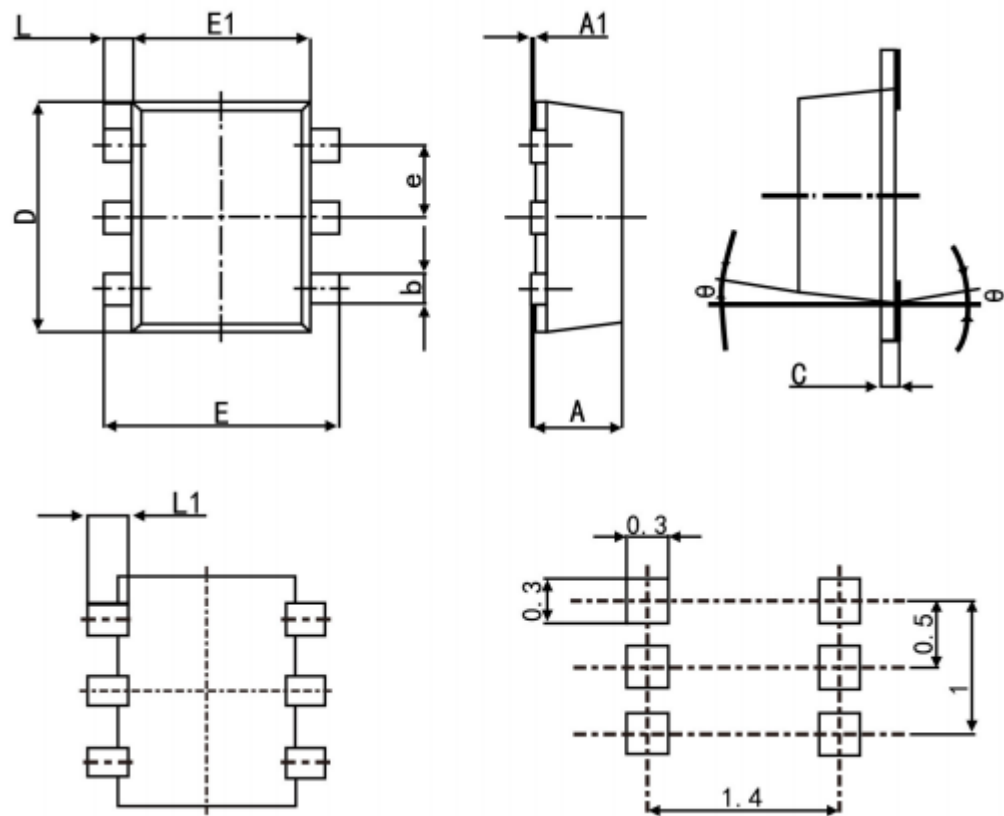
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	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 _{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	h _{FE(1)}	V _{CE} =-1V, I _C =-0.1mA	60			
	h _{FE(2)}	V _{CE} =-1V, I _C =-1mA	80			
	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			-0.25	V
	V _{CE(sat)2}	I _C =-50mA, I _B =-5mA			-0.4	V
Base-emitter saturation voltage	V _{BE(sat)1}	I _C =-10mA, I _B =-1mA	-0.65		-0.85	V
	V _{BE(sat)2}	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 _{CE} =-5V, I _C =-0.1mA, f=1KHz, R _g =1KΩ			4	dB
Delay time	t _d	V _{CC} =-3V, V _{BE} =0.5V			35	nS
Rise time	t _r	I _C =-10mA, I _{B1} =-I _{B2} =-1mA			35	nS
Storage time	t _s	V _{CC} =-3V, I _C =-10mA			225	nS
Fall time	t _f	I _{B1} =-I _{B2} =-1mA			75	nS

Typical Characteristics



PACKAGE MECHANICAL DATA



SOT-563

Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.525	0.600
A1	0.000	0.050
e	0.450	0.550
c	0.090	0.160
D	1.500	1.700
b	0.170	0.270
E1	1.100	1.300
E	1.500	1.700
L	0.100	0.300
LI	0.200	0.400
θ	7°REF.	

REEL SPECIFICATION

P/N	PKG	QTY
MMDT3906V-MS	SOT-563	3000

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