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SEMICONDUCTOR



ESD



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PLED

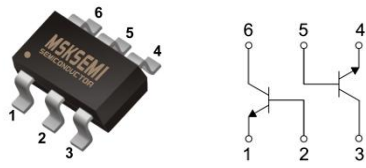
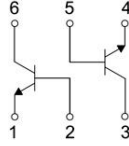
MMDT5551

Product specification

FEATURES

- Epitaxial Planar Die Construction
- Complementary PNP Type Available(MMDT5401)
- Ideal for Medium Power Amplification and Switching

Reference News

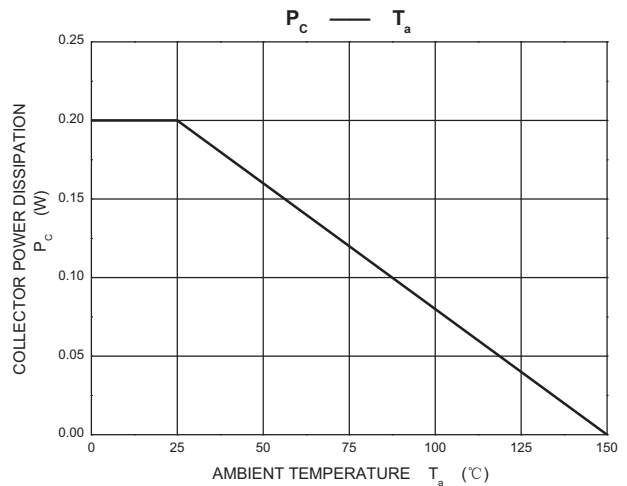
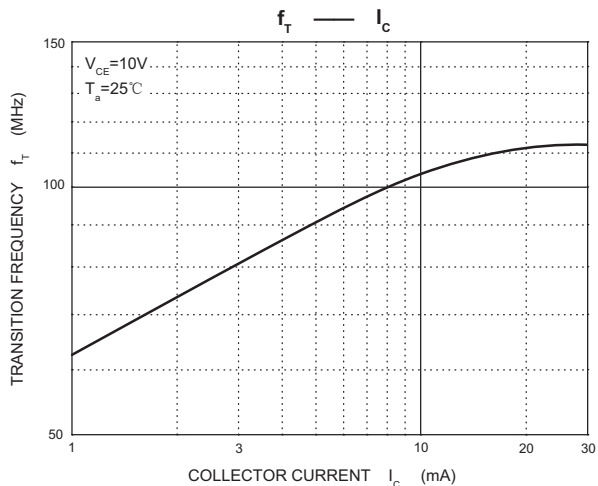
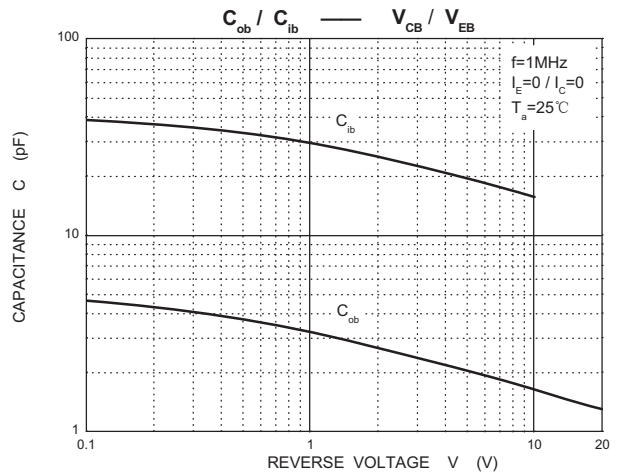
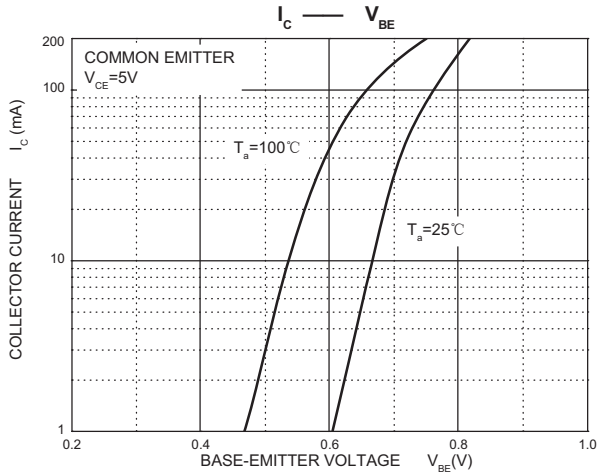
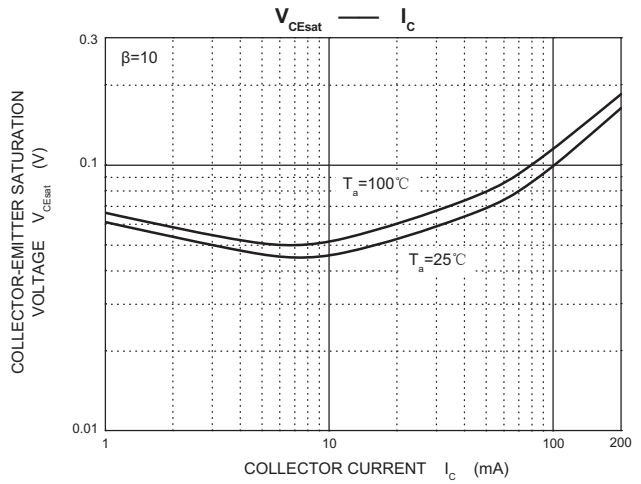
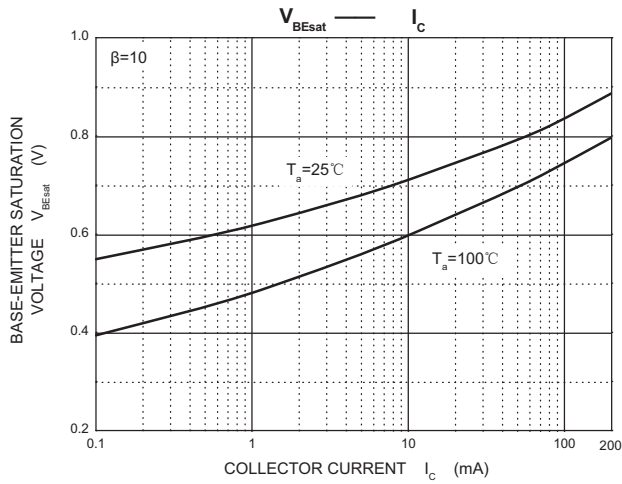
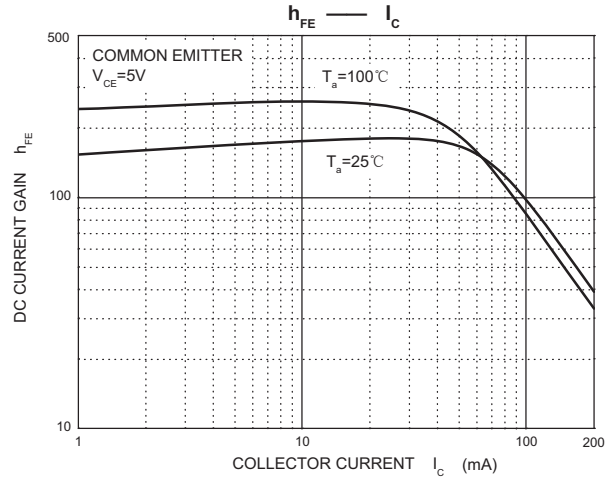
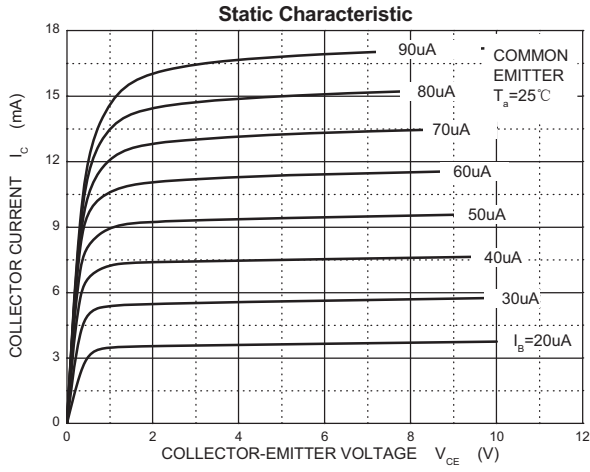
PACKAGE OUTLINE	MARKING
	
SOT-363	

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

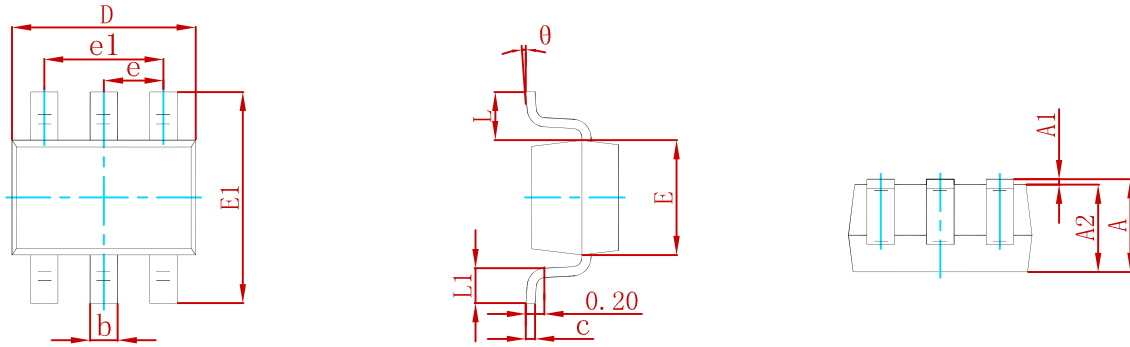
Symbol	parameter	Value	Units
V _{CB0}	collector- Base Voltage	180	V
V _{CE0}	collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _c	collector current -continuous	0.2	A
p _c	collector Power Dissipation	0.2	W
T _J , T _{stg}	operation Junction and storage Temperature Range	-55~+150	°C

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

parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown Voltage	V _{(BR)cBO}	I _c =100μA, I _E =0	180			V
Collector-emitter breakdown Voltage	V _{(BR)cEO}	I _c =1mA, I _B =0	160			V
Emitter-base breakdown Voltage	V _{(BR)EBO}	I _E =10μA, I _c =0	6			V
Collector cut-off current	I _{cBO}	V _{cB} =120V, I _E =0			0.05	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _c =0			0.05	μA
DC current gain	h _{FE(1)}	V _{cE} =5 V, I _c =1mA	80			
	h _{FE(2)}	V _{cE} =5 V, I _c =10mA	100		300	
	h _{FE(3)}	V _{cE} =5 V, I _c =50mA	30			
Collector-emitter saturation Voltage	V _{cE(sat)1}	I _c =10mA, I _B =1mA			0.15	V
	V _{cE(sat)2}	I _c =50mA, I _B =5mA			0.2	V
Base-emitter saturation Voltage	V _{BE(sat)1}	I _c =10mA, I _B =1mA			1	V
	V _{BE(sat)2}	I _c =50mA, I _B =5mA			1	V
Transition frequency	f _T	V _{cE} =10V, I _c =10mA, f=100MHz	100		300	MHz
Output Capacitance	C _{ob}	V _{cB} =10V, I _E =0, f=1MHz			6	pF
Noise Figure	NF	V _{cE} =5V, I _c =0.2mA, R _S =1KΩ, f=1KHz			8	dB

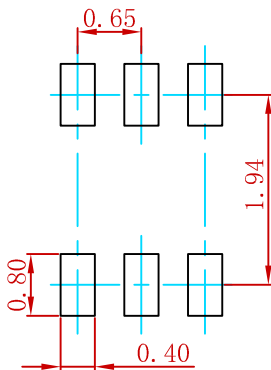


PACKAGE MECHANICAL DATA



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	2.400	0.085	0.094
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
theta	0°	8°	0°	8°

Suggested Pad Layout



Note:

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

REEL SPECIFICATION

P/N	PKG	QTY
MMDT5551	SOT-363	3000

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