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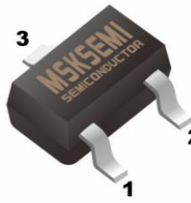

MMST2222A

Product specification

FEATURES

- Epitaxial planar die construction
- Complementary PNP Type available(MMST2907A)

Reference News

PACKAGE OUTLINE	MARKING
 <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> 1. BASE 2. EMITTER 3. COLLECTOR </div>	
SOT-323	

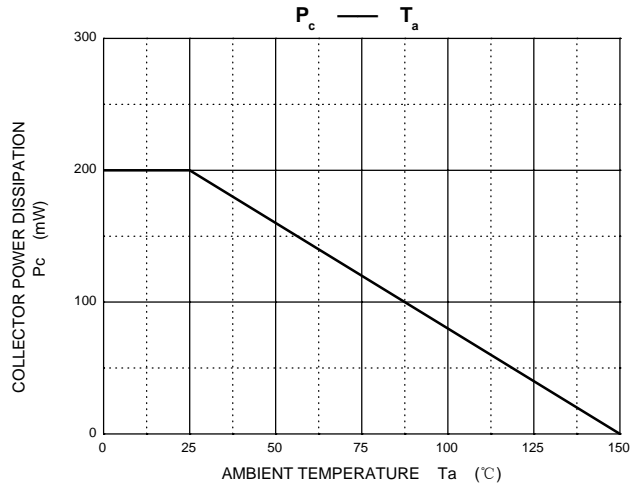
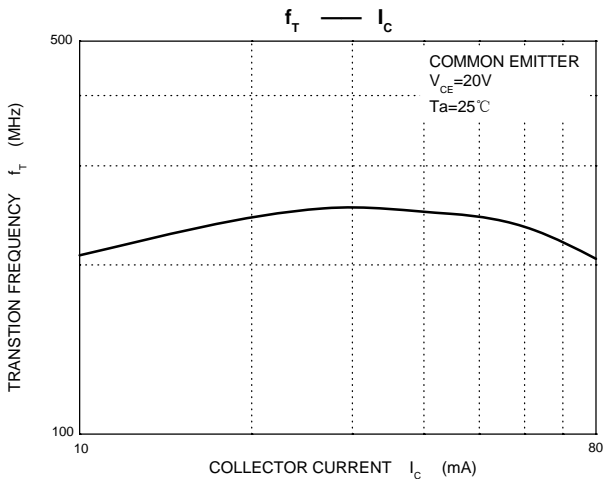
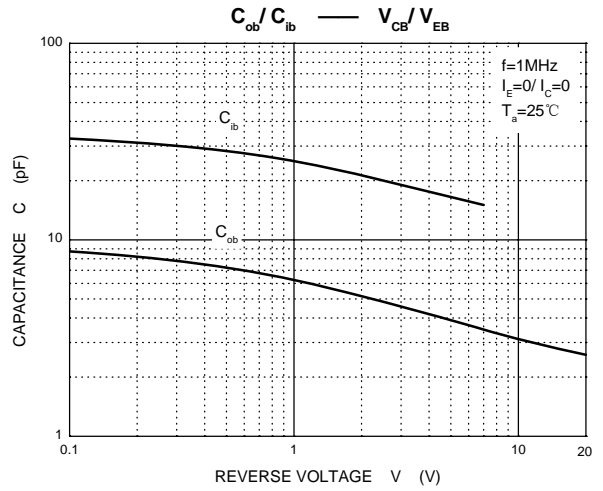
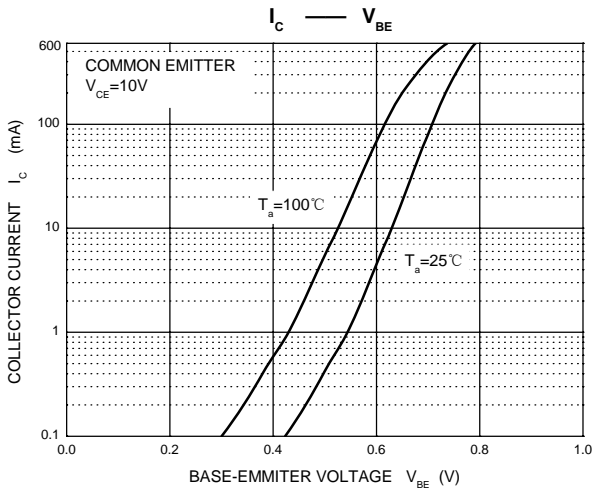
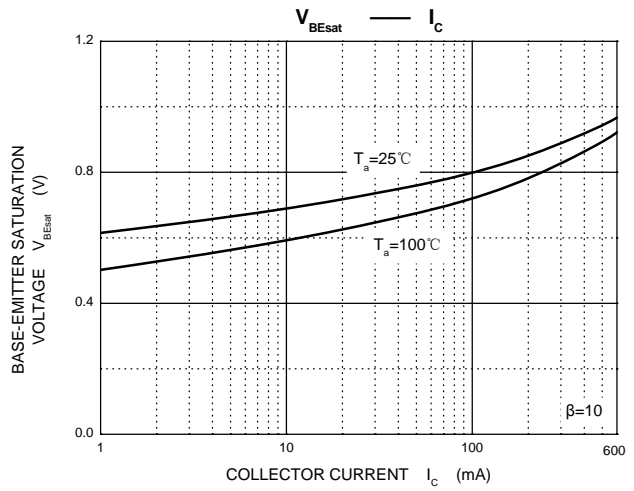
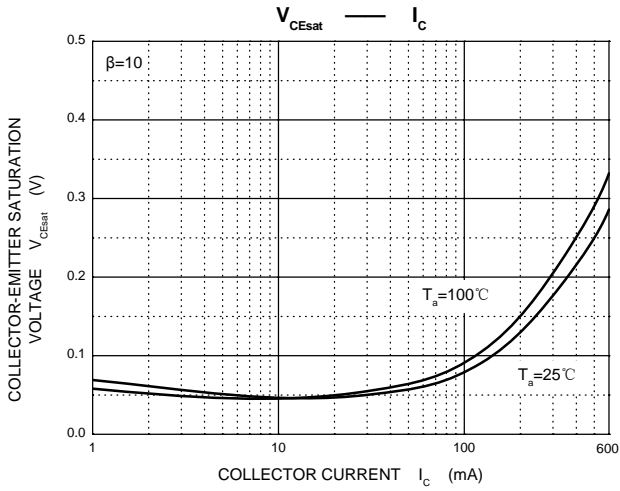
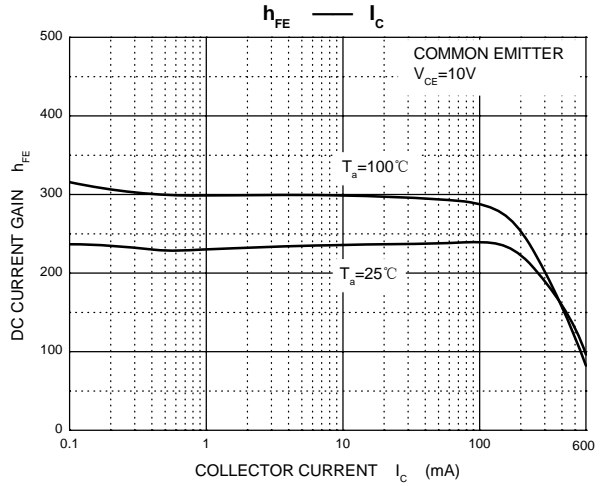
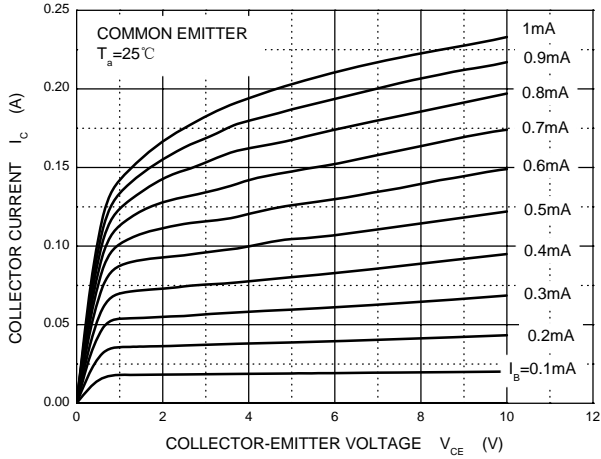
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	75	V
V _{CEO}	Collector-Emitter Voltage	40	V
V _{EBO}	Emitter-Base Voltage	6	V
I _c	Collector Current -Continuous	600	mA
P _c	Collector Dissipation	200	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

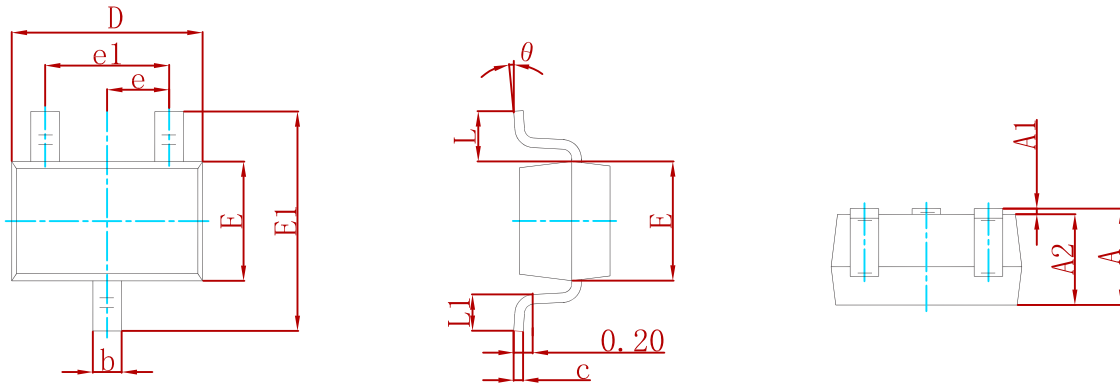
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _c = 10μA, I _E =0	75			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c = 10mA, I _B =0	40			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _c =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =70 V, I _E =0			100	nA
Collector cut-off current	I _{CEO}	V _{CE} =35V, I _B =0			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} = 3V, I _c =0			100	nA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _c =0.1mA	35			
	h _{FE(2)}	V _{CE} =10V, I _c = 1mA	50			
	h _{FE(3)}	V _{CE} =10V, I _c = 10mA	75			
	h _{FE(4)}	V _{CE} =10V, I _c = 150mA	100		300	
	h _{FE(5)}	V _{CE} =10V, I _c = 500mA	40			
	h _{FE(6)}	V _{CE} =1V, I _c = 150mA	35			
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =500 mA, I _B = 50mA I _c =150 mA, I _B =15mA			1 0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c =500 mA, I _B = 50mA I _c =150 mA, I _B =15mA			2.0 1.2	V
Transition frequency	f _T	V _{CE} =20V, I _c = 20mA f=100MHZ	300			MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E = 0, f=1MHz			8	pF
Delay time	t _d	V _{CC} =30V, V _{BE(off)} =-0.5V			10	ns
Rise time	t _r	I _c =150mA, I _{B1} = 15mA			25	ns
Storage time	t _s	V _{CC} =30V, I _c =150mA			225	ns
Fall time	t _f	I _{B1} =-I _{B2} =15mA			60	ns

Static Characteristic

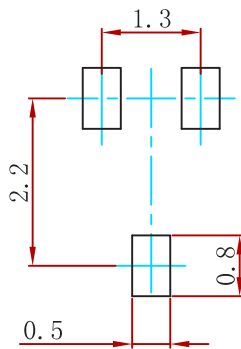


PACKAGE MECHANICAL DATA



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	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	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°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MMST2222A	SOT-323	3000

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