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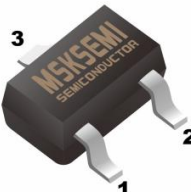

MMST4401

Product specification

FEATURES

- Complementary to MMST4403
- Small Surface Mount Package

Reference News

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

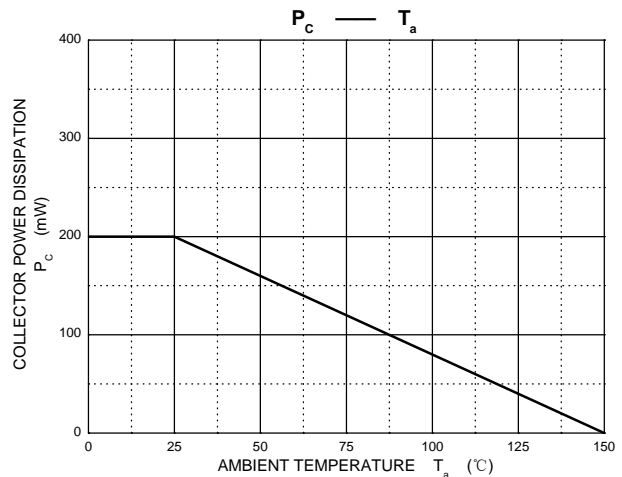
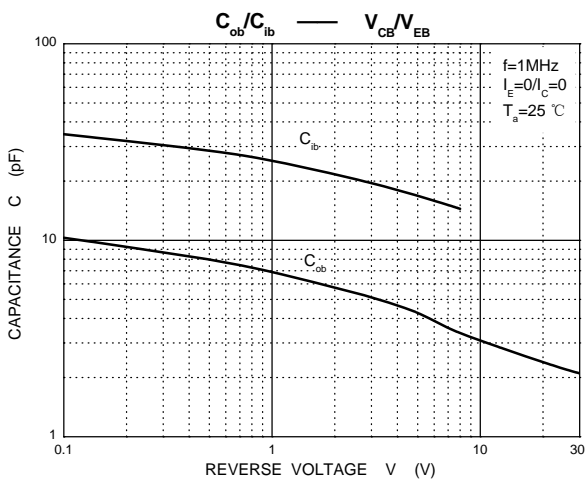
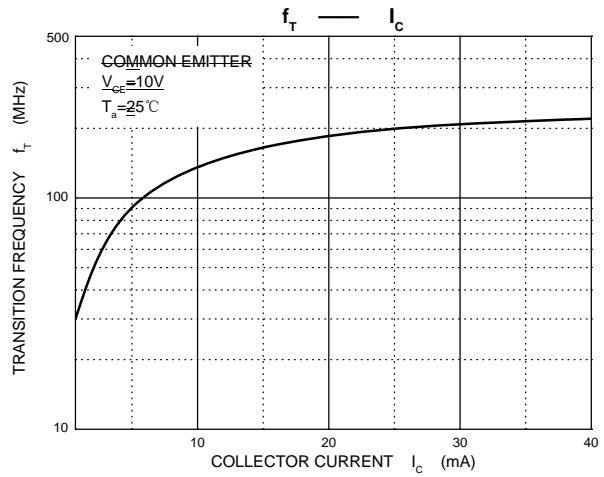
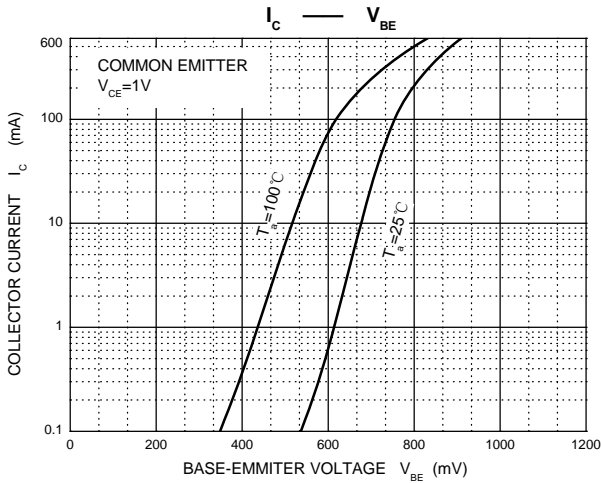
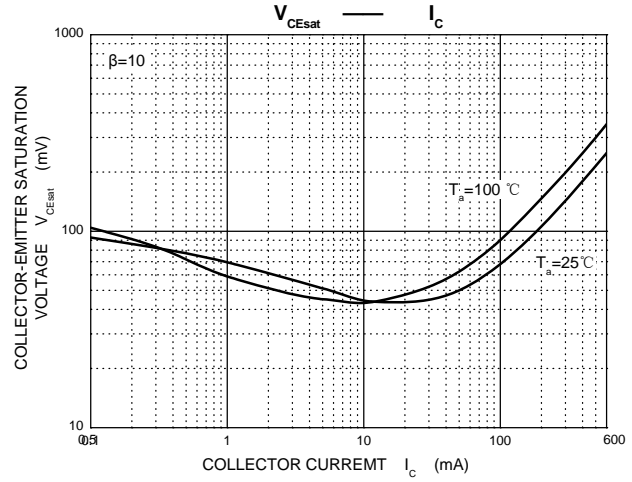
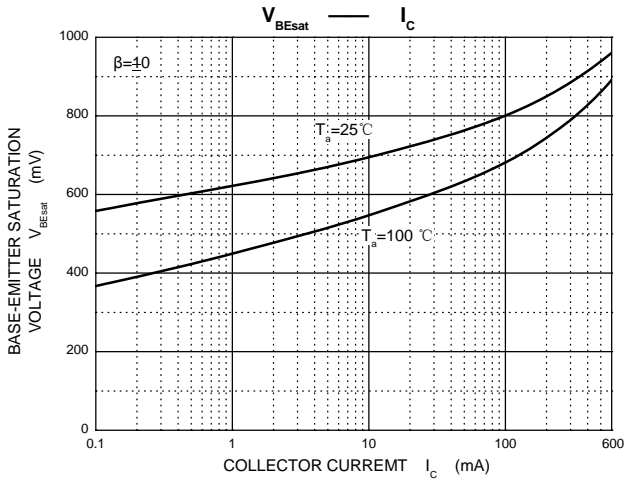
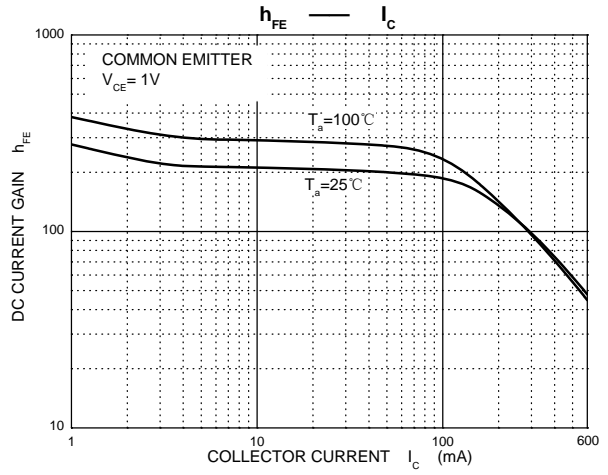
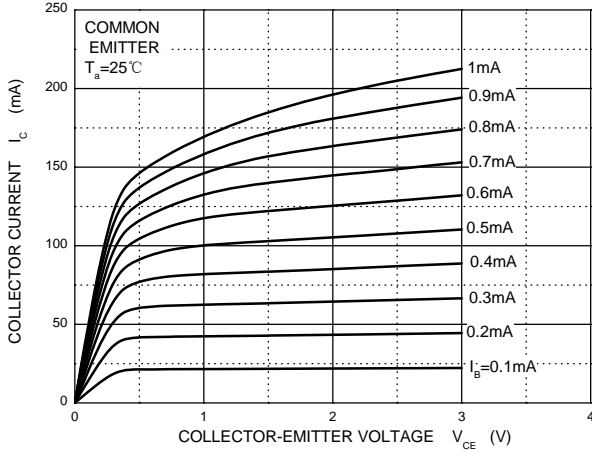
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C

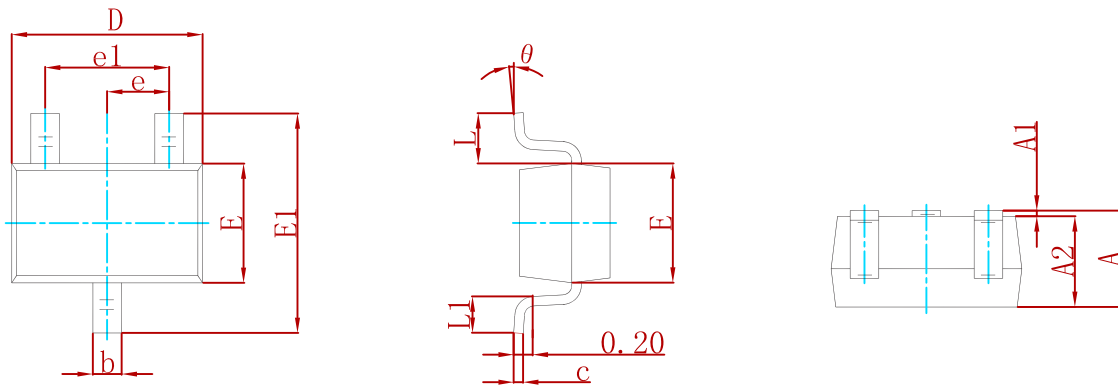
ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=35V, I_E=0$			100	nA
Collector cut-off current	I_{CEO}	$V_{CE}=35V, I_B=0$			500	nA
DC current gain	h_{FE}	$V_{CE}=1V, I_C=100\mu A$	20			
		$V_{CE}=1V, I_C=1mA$	40			
		$V_{CE}=1V, I_C=10mA$	80			
		$V_{CE}=1V, I_C=150mA$	100		300	
		$V_{CE}=2V, I_C=500mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150mA, I_B=15mA$			0.4	V
		$I_C=500mA, I_B=50mA$			0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150mA, I_B=15mA$	0.75		0.95	V
		$I_C=500mA, I_B=50mA$			1.2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=20mA, f=100MHz$	250			MHz
Collector output capacitance	C_{ob}	$V_{CB}=5V, I_E=0, f=1MHz$			6.5	pF

Static Characteristic

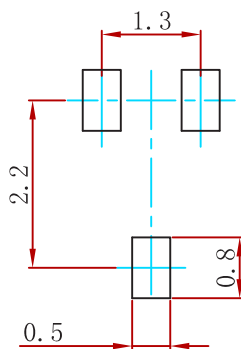


PACKAGE MECHANICAL DATA



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
MMST4401	SOT-323	3000

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