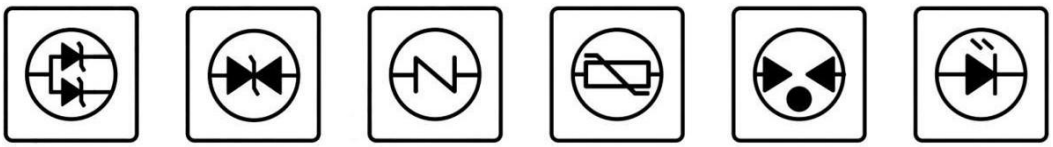
MSKSEMI 美森科
SEMICONDUCTOR



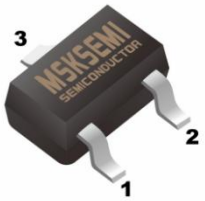
MMST5401

Product specification

FEATURES

- Complementary to MMST5551
- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching

Reference News

PACKAGE OUTLINE	MARKING
 1. BASE 2. EMITTER 3. COLLECTOR	K4M
SOT-323	

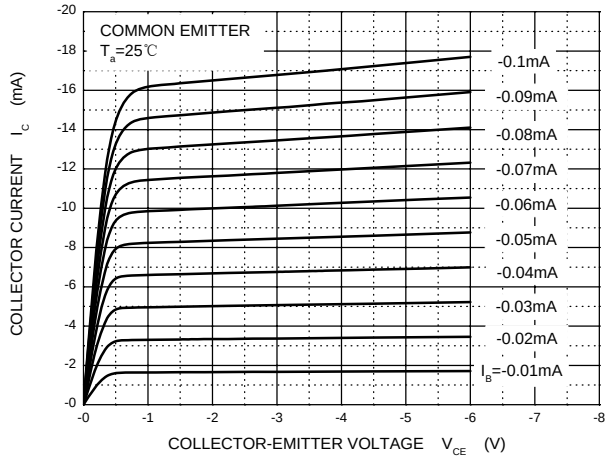
MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-600	mA
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

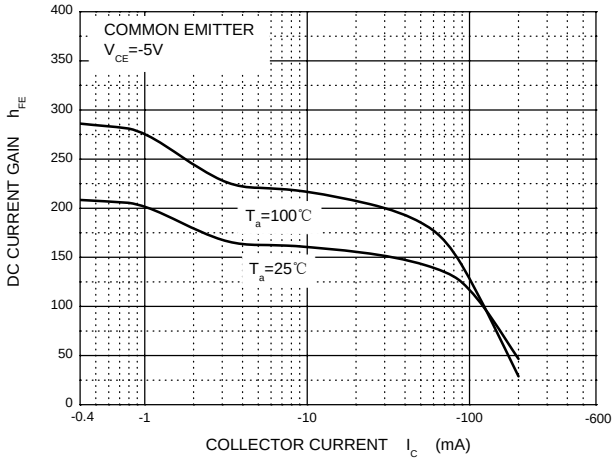
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-120V, I_E=0			-50	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-3V, I_C=0			-50	nA
DC current gain	h_{FE}	V_{CE}=-5V, I_C=-1mA	50			
		V_{CE}=-5V, I_C=-10mA	100		300	
		V_{CE}=-5V, I_C=-50mA	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-50mA, I_B=-5mA			-0.5	V
		I_C=-10mA, I_B=-1mA			-0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-50mA, I_B=-5mA			-1	V
		I_C=-10mA, I_B=-1mA			-1	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-10mA , f=100MHz	100			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz			6	pF

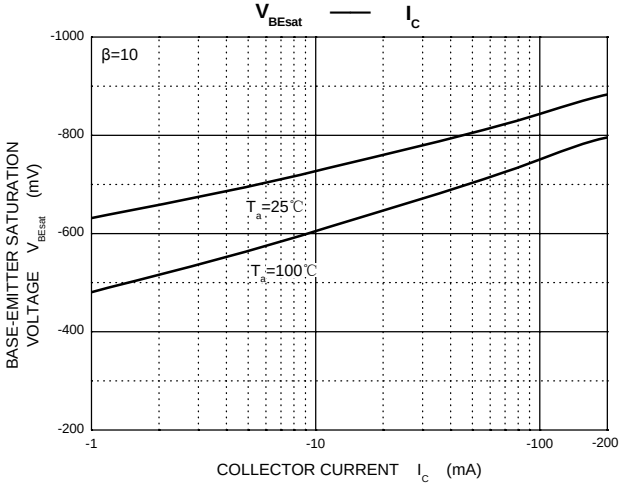
Static Characteristic



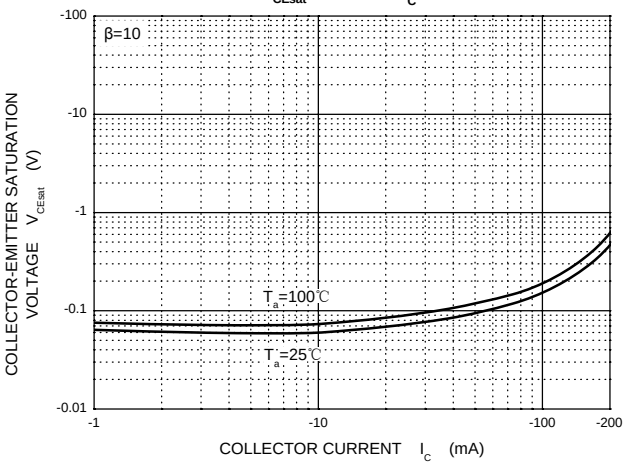
h_{FE} —— I_C



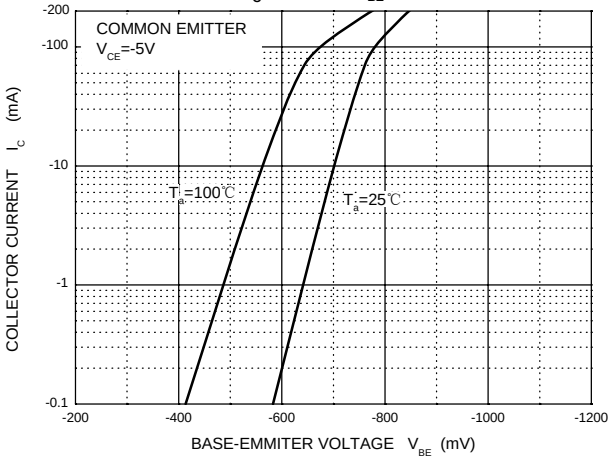
V_{BEsat} —— I_C



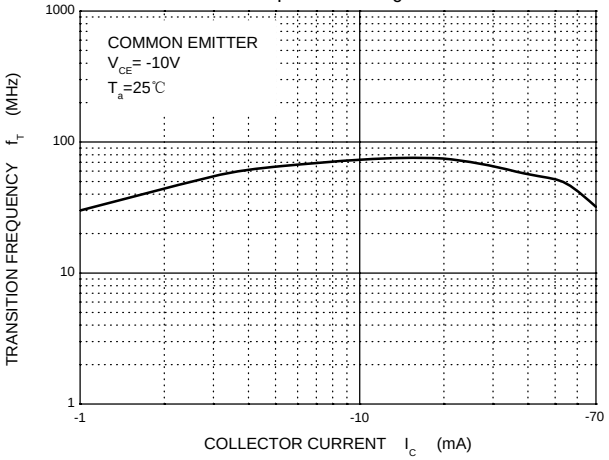
V_{CEsat} —— I_C



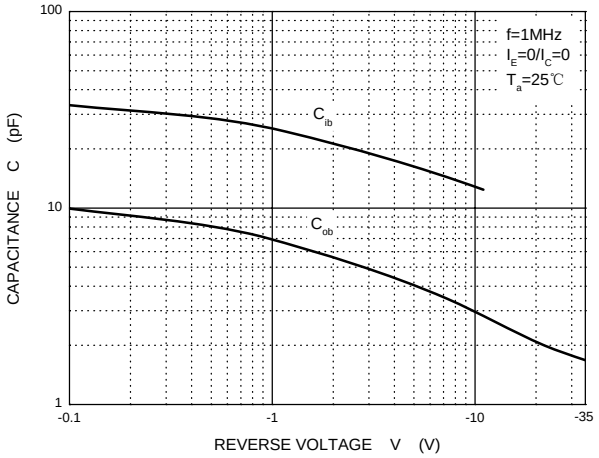
I_C —— V_{BE}



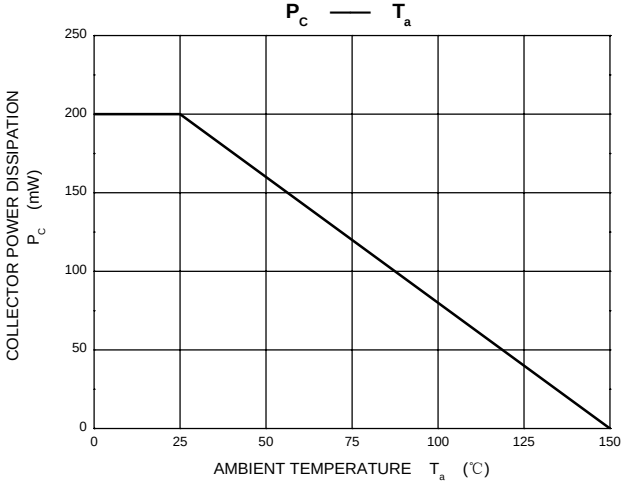
f_T —— I_C



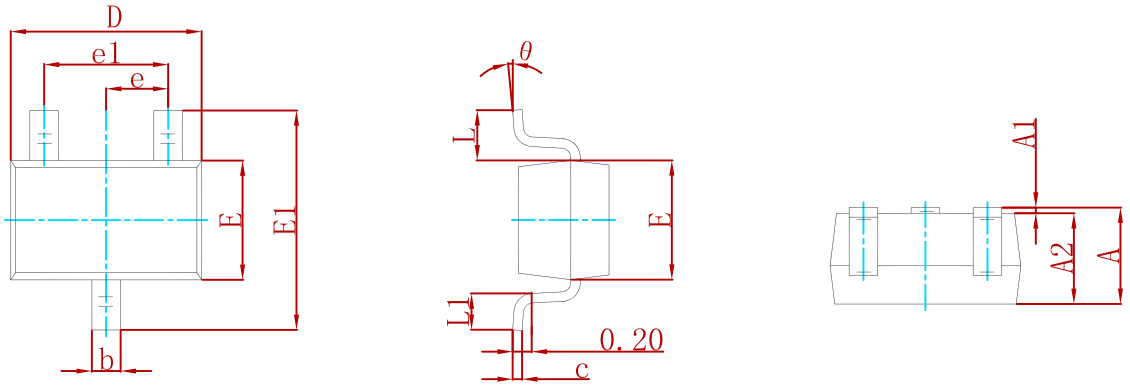
C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



P_C —— T_a

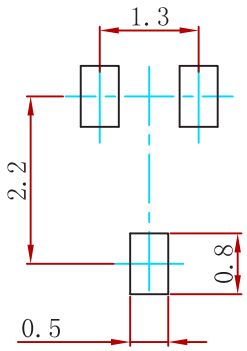


PACKAGEMECHANICALDATA



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:±0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MMST5401	SOT-323	3000

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