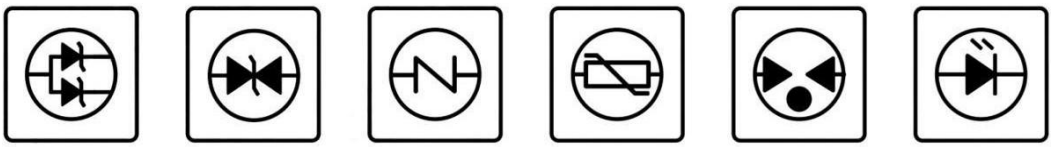
MSKSEMI 美森科
SEMICONDUCTOR



MJD41C(MS)

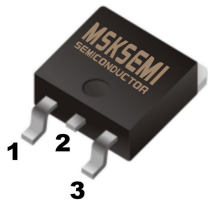
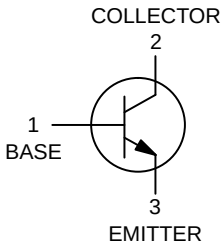
Product specification

TRANSISTOR (NPN)

FEATURES

- Designed for General Purpose Amplifier and Low Speed S witching Applications.
- Lead Formed for Surface Mount Applications in Plastic Sleeves
- Electrically Similar to Popular TIP41 and TIP42 Series
- Monolithic Construction With Built–in Base–Emitter Resistors

Reference News

PACKAGE OUTLINE	COMPLEMENTARY	Marking
 1.BASE 2.COLLECTOR 3.EMITTER		MSKSEMI MJD41C MS XXX

Notes :XXX represents the order code.

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-EmitterVoltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	6	A
I_{CP}^*	Collector Current -Pluse	10	A
P_C	Collector Power Dissipation	1.25	W
T_J,T_{stg}	Operating Junction and Storage Temperature Range	-55-150	℃

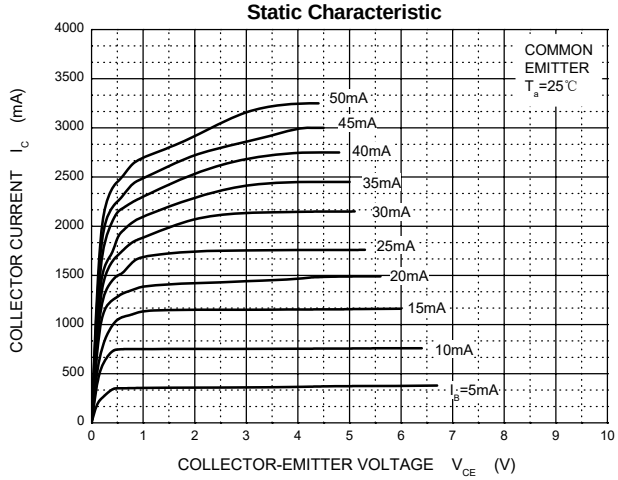
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C=30mA,I_B=0	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CEO}	V_{CB}=60V,I_E=0			50	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V I_C=0			0.5	mA
DC current gain	$h_{FE(1)}$	V_{CE}=4V I_C=0.3A	30			
	$h_{FE(2)}$	V_{CE}=4V,I_C=3A	15		75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=6A,I_B=0.6A			1.5	V
Base-emitter voltage	V_{BE}	V_{CE}=4V,I_C=6A			2	V
Transition frequency	f_T	V_{CE}=10V,I_C=500mA,f=1MHz	3			MHz

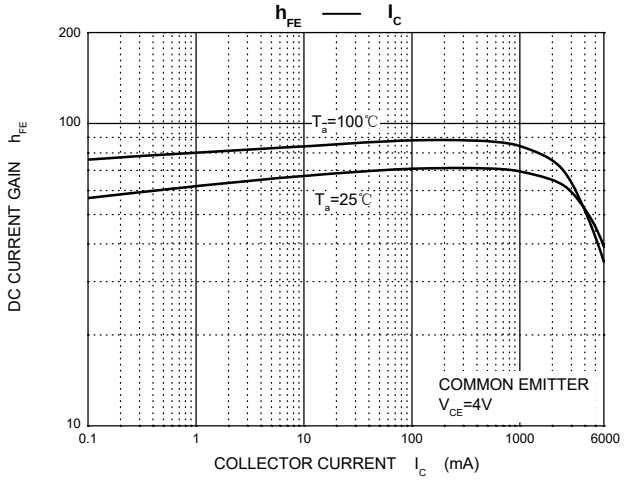
* Pulse Test: PW≤300μs, Duty Cycle≤2%

Typical Characteristics

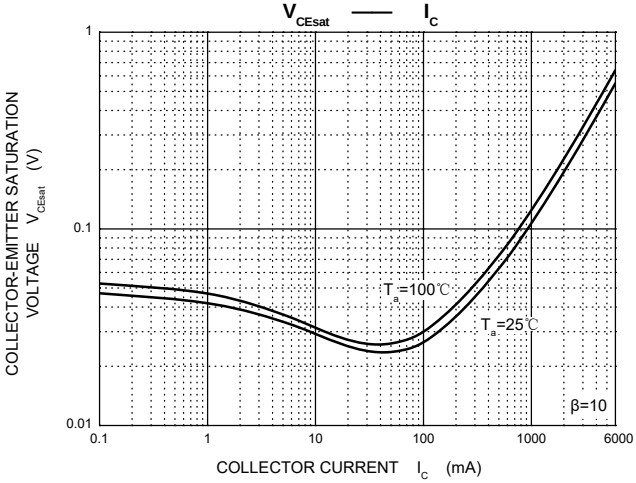
Static Characteristic



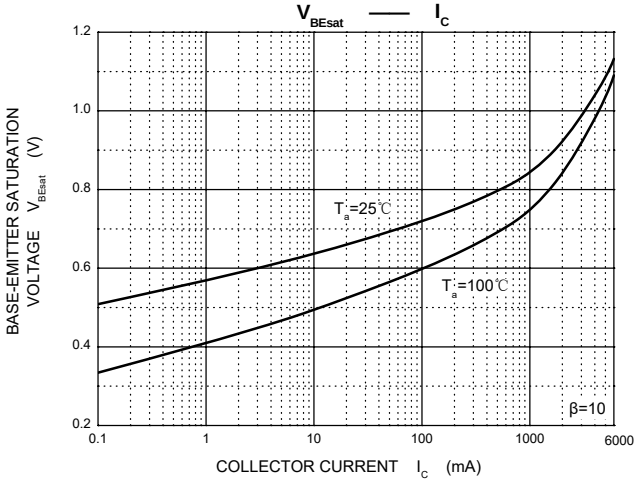
h_{FE} —— I_C



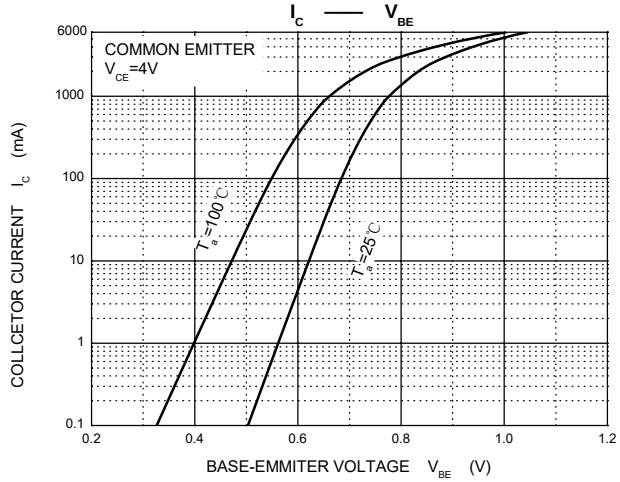
V_{CEsat} —— I_C



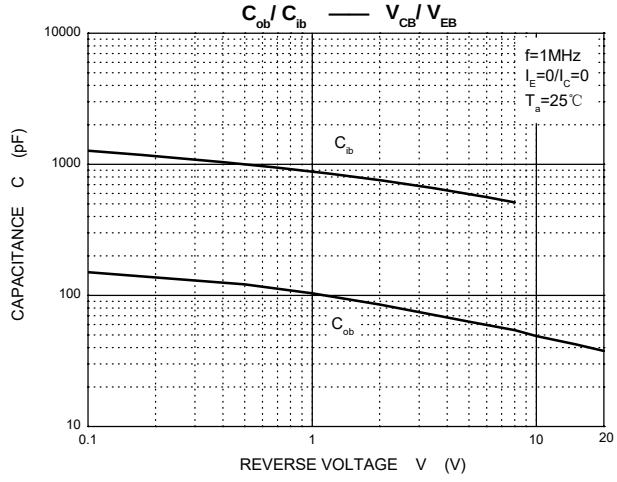
V_{BEsat} —— I_C



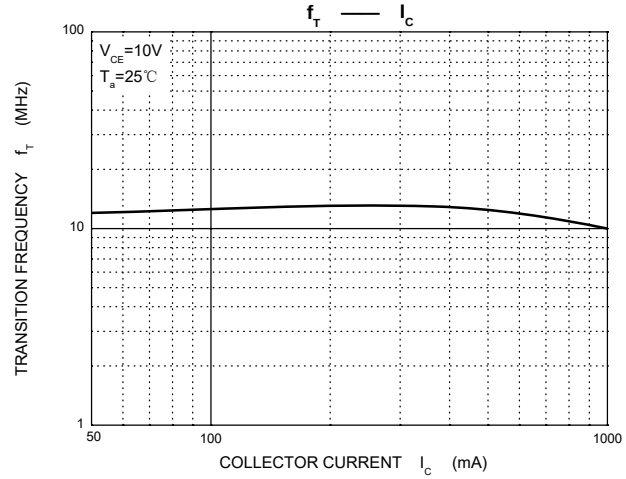
I_C —— V_{BE}



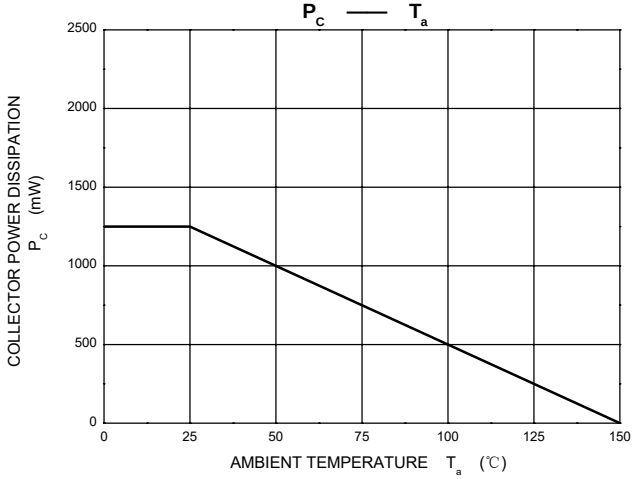
C_{ob} / C_{ib} —— V_{CB} / V_{EB}



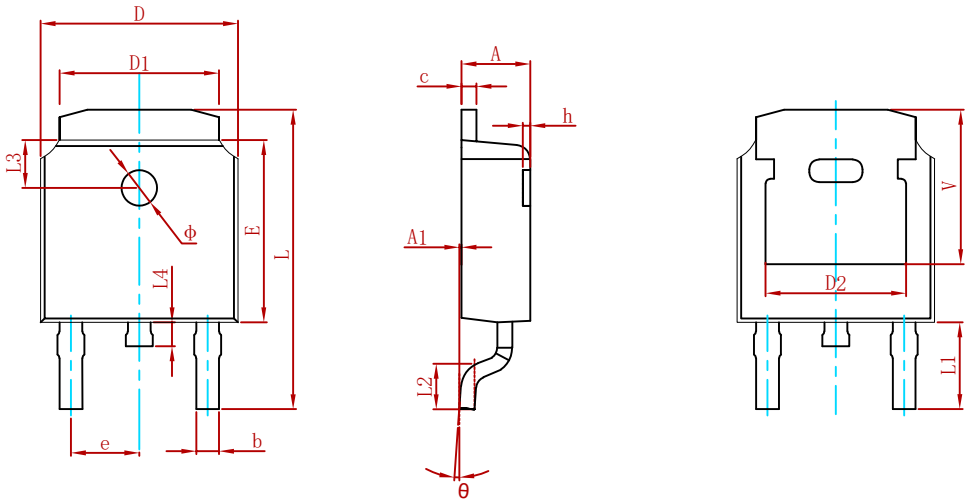
f_T —— I_C



P_C —— T_a

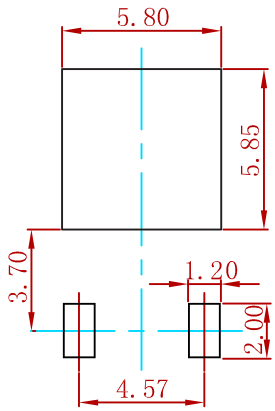


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

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
MJD41C(MS)	TO-252	2500

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