

# MSKSEMI 美森科

SEMICONDUCTOR



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## MJD41CT4G(MS)

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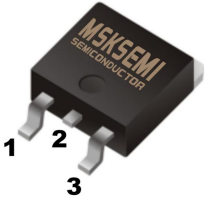
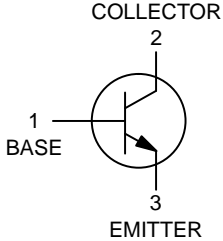

Product specification

**TRANSISTOR (NPN)**

**FEATURES**

- Designed for General Purpose Amplifier and Low Speed Switching 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
 <p>1.BASE 2.COLLECTOR 3.EMITTER</p>		

Notes :XXX represents the order code.

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

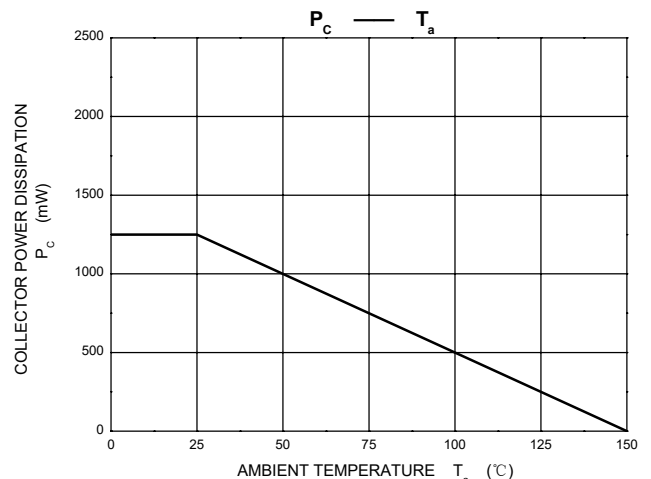
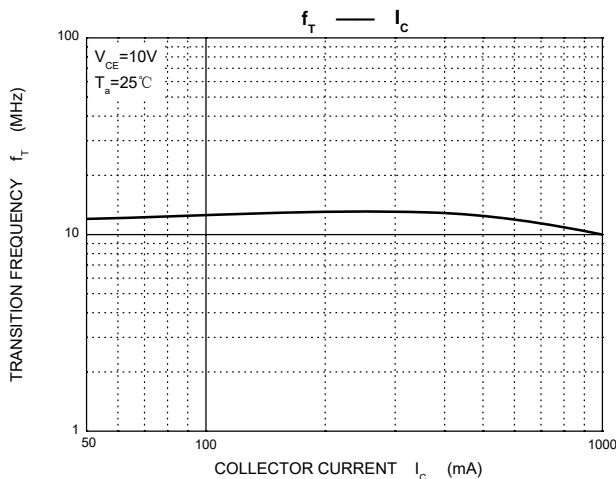
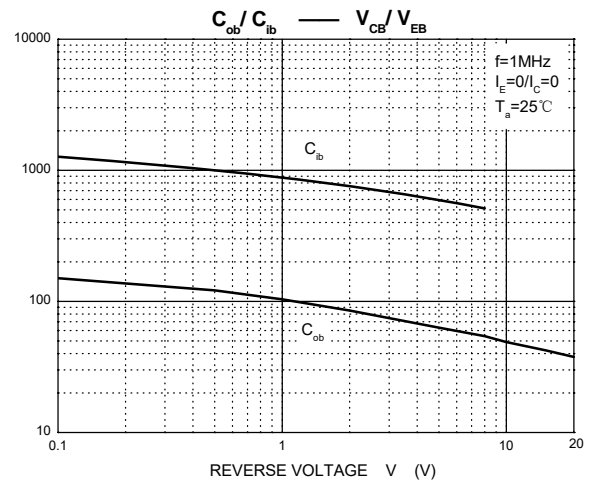
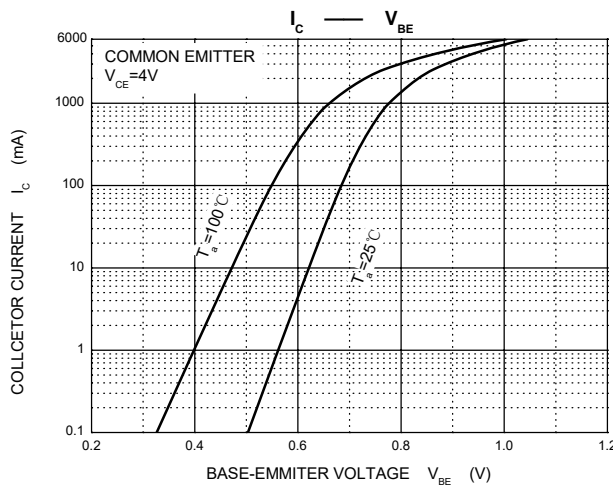
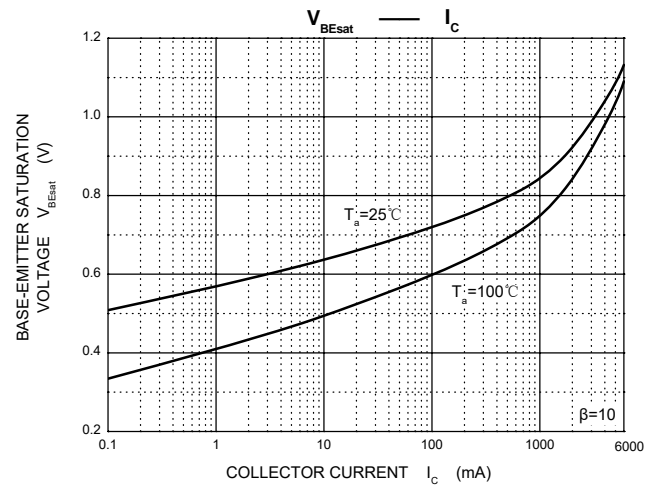
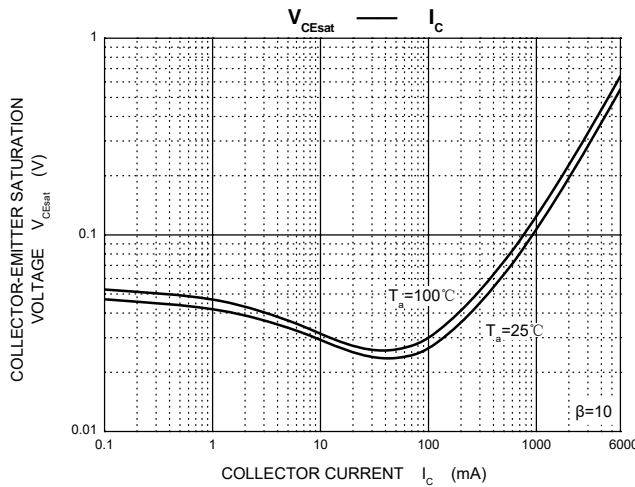
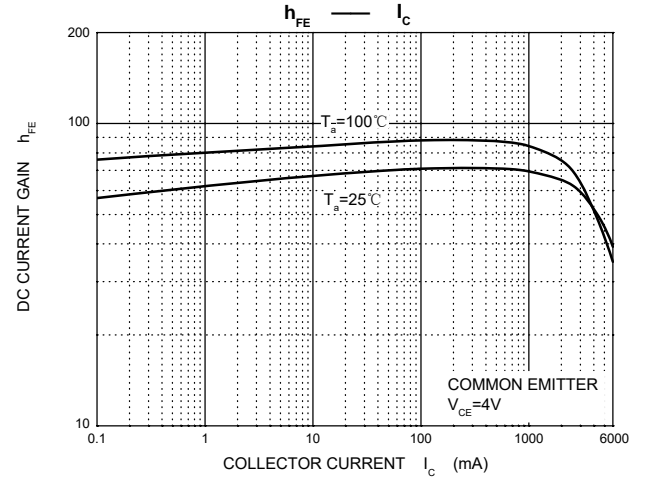
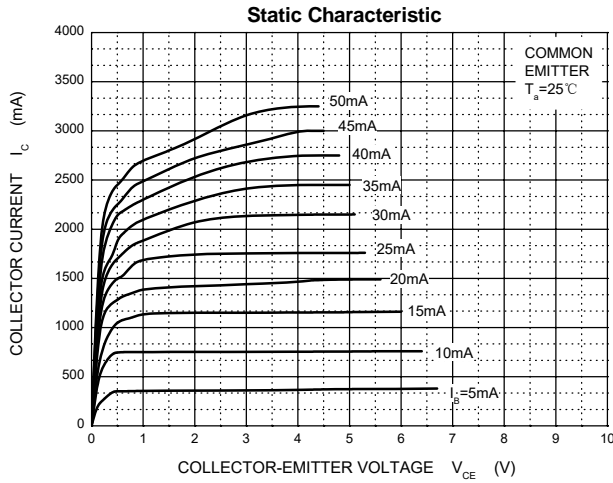
Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_c$	Collector Current -Continuous	6	A
$I_{CP}^*$	Collector Current -Pulse	10	A
$P_c$	Collector Power Dissipation	1.25	W
$T_J, T_{stg}$	Operating Junction and Storage Temperature Range	-55-150	°C

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

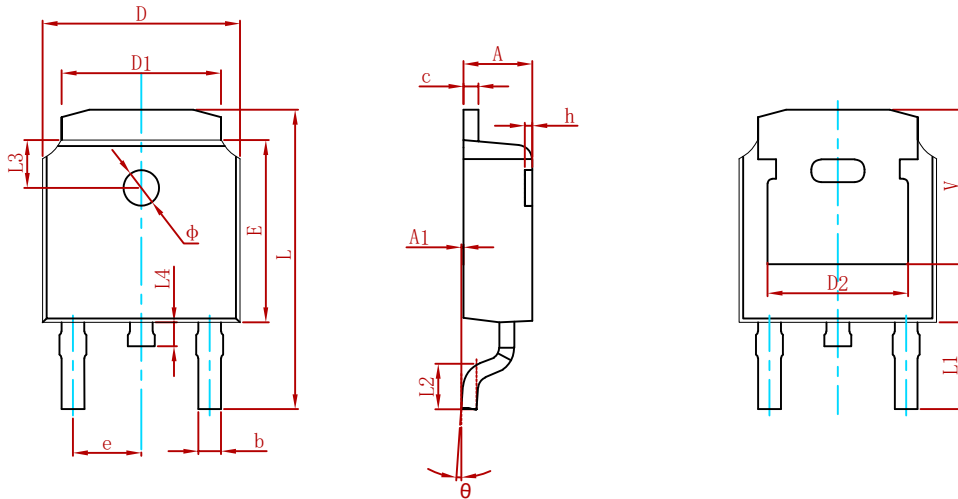
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	100			V
Collector-emitter breakdown voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> =30mA, I <sub>B</sub> =0	100			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CEO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0			50	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.5	mA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =0.3A	30			
	h <sub>FE(2)</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =3A	15		75	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =6A, I <sub>B</sub> =0.6A			1.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =6A			2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA, f=1MHz	3			MHz

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

**Typical Characteristics**

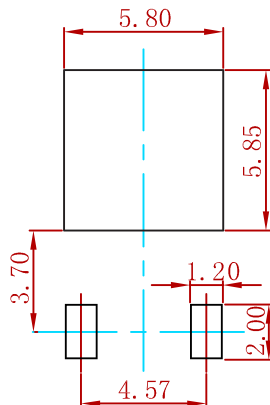


**PACKAGE MECHANICAL DATA**



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
MJD41CT4G(MS)	TO-252	2500

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