MJD41C

DATASHEET

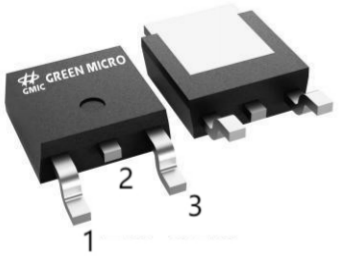
Specification Revision History:

Version	Date	Description
V1.0	2021/11	New
V1.1	2022/03	Modify Ordering Information
V1.2	2024/02	Modify Ordering Information
V1.3	2025/05	Add application precautions and overall typesetting.

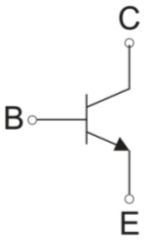
Features

Designed for general purpose amplifier and low speed switching applications.

The appearance of the product



1.BASE
2.COLLECTOR
3.EMITTER



TO-252-2

Ordering Information

Product Model	Package Type	Packing	Packing Qty
MJD41CGT	TO-252-2	REEL	2500PCS/REEL
MJD41CT4G	TO-252	REEL	2500PCS/REEL
MJD41CG	TO-252	REEL	2500PCS/REEL

Maximum Ratings (Ta=25°C unless otherwise noted)

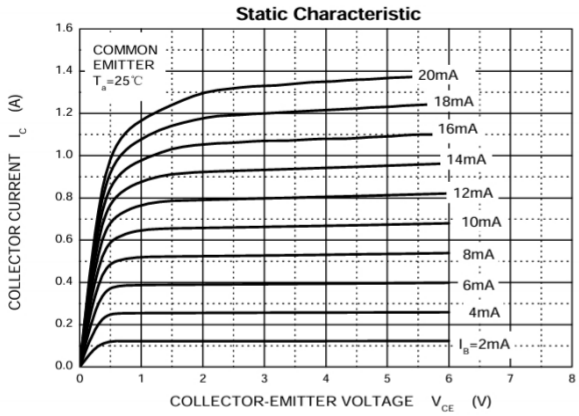
Symbol	Parameter	MJD41C	Unit
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	2	W
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	62.5	°C/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

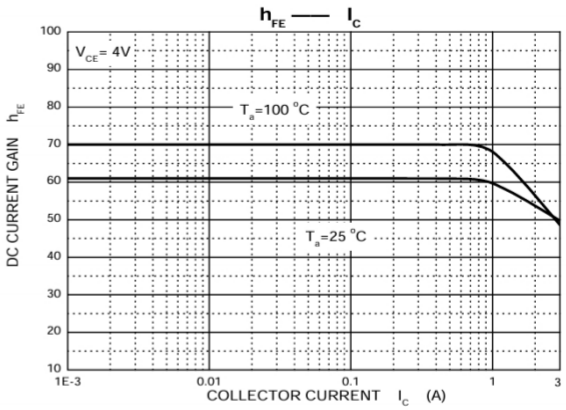
Electrical Characteristics (Ta=25°C unless otherwise specified)

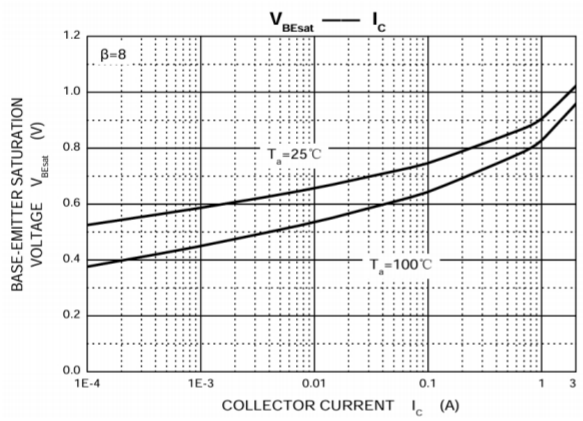
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 0.1mA, I_E=0	140		V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C= 1mA, I_B=0	100		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 0.1mA, I_C=0	6		V
Collector cut-off current	I_{CBO}	V_{CB}=112V, I_E=0		0.5	μA
Collector cut-off current	I_{CEO}	V_{CE}= 60V, I_B= 0		0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0		1	mA
DC current gain	h_{FE}	V_{CE}=5V, I_C= 0.5A	100	300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A, I_B=100mA		0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=1A, I_B=100mA		1.5	V
Transition frequency	f_T	V_{CE}=10V,I_C=0.5A f =1MHz	3		MHZ

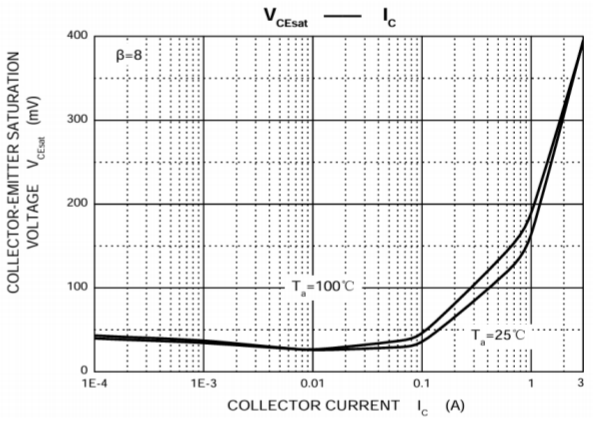
*Pulse test

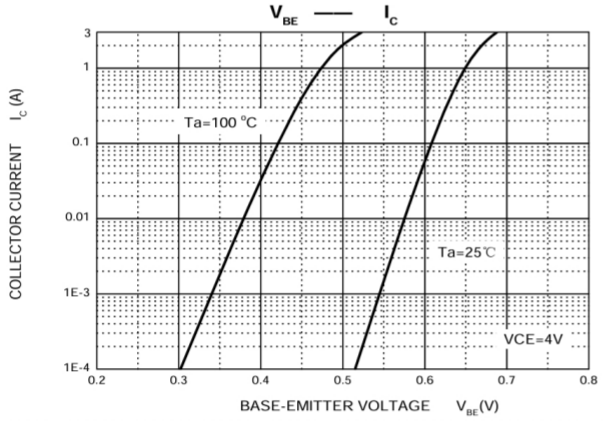
Typical Characteristics

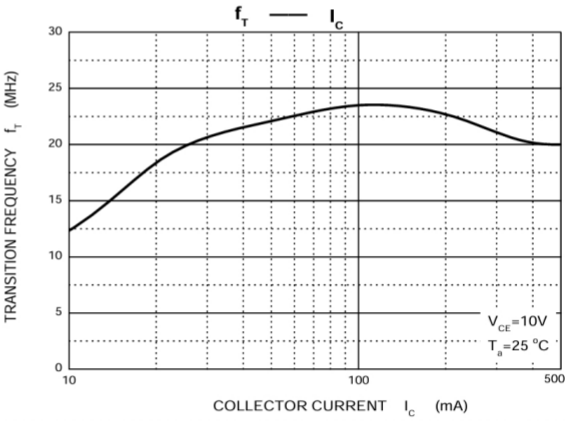


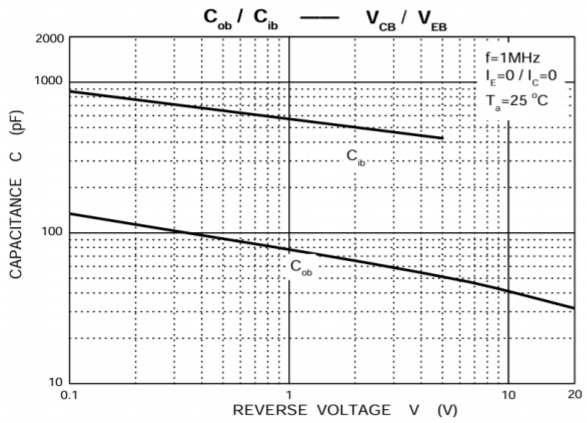


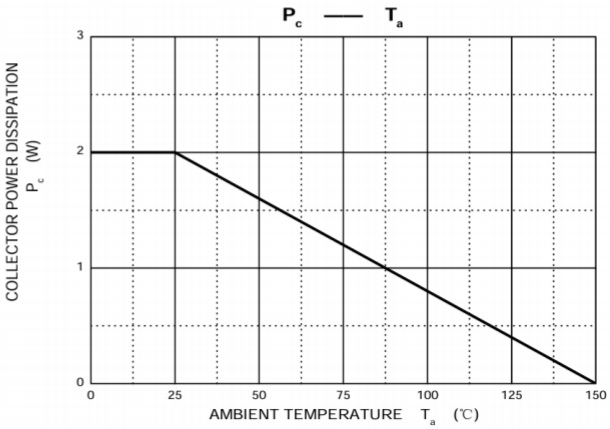












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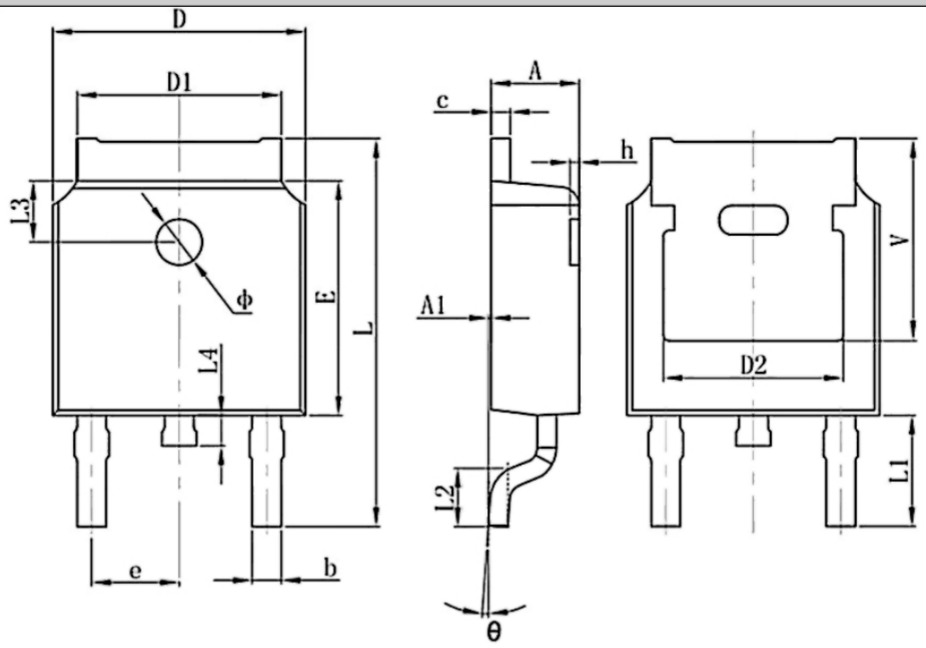

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.470	0.570	0.018	0.023
A1	2.220	2.380	0.087	0.094
A2	0.470	0.570	0.018	0.023
B	0.820	0.840	0.032	0.033
B1	2.380	2.480	0.093	0.098
B2	0.500	0.520	0.019	0.021
C	4.250	4.450	0.167	0.176
D	6.000	6.200	0.236	0.245
D1	1.150	1.250	0.045	0.050
E	0.650	0.850	0.025	0.034
E1	6.450	6.750	0.253	0.266
e	2.285（BSC）		0.090（BSC）	

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