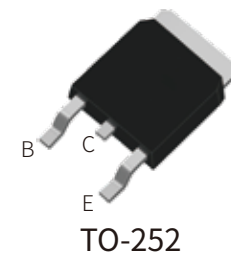


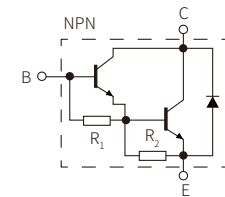
FEATURES

- | High DC Current Gain
- | Electrically Similar to Popular TIP122
- | Built-in a Damper Diode at E-C



APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003



R_1 typ. =5K Ω , R_2 typ. =210 Ω

Schematic Symbol

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

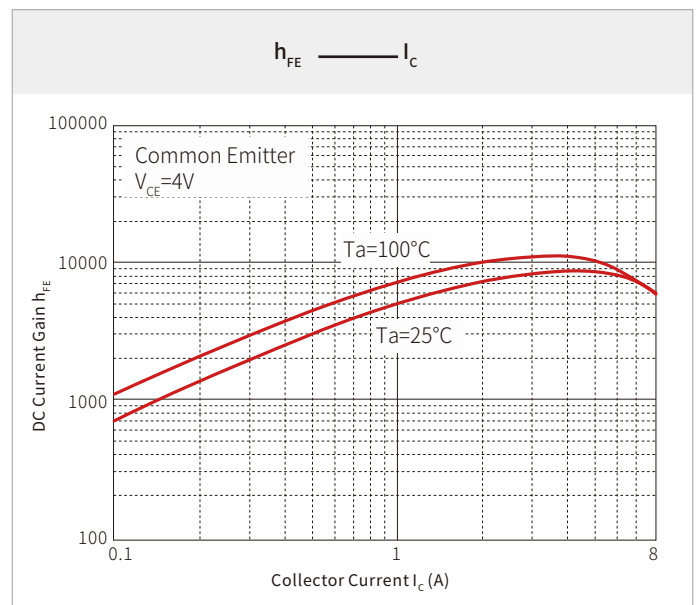
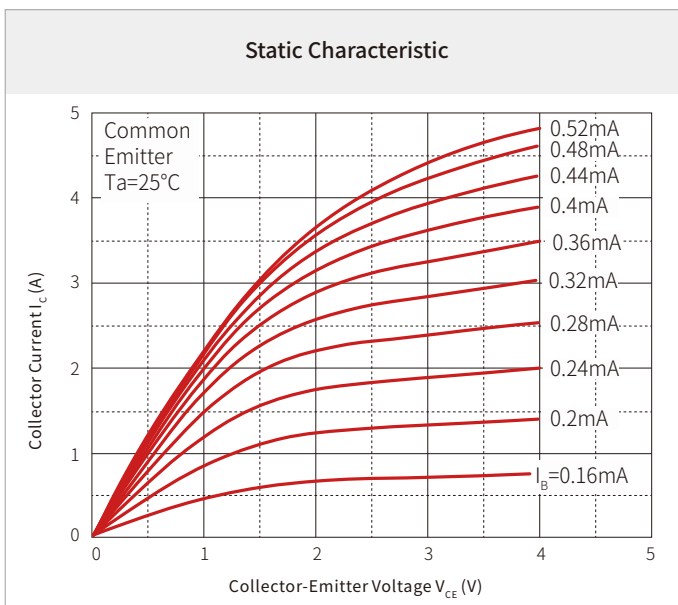
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	100	
Emitter-Base Voltage	V_{EBO}	5	
Collector Current -Continuous	I_C	8	A
Collector Power Dissipation	P_C	1.5	W
Storage Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	$^\circ\text{C}$

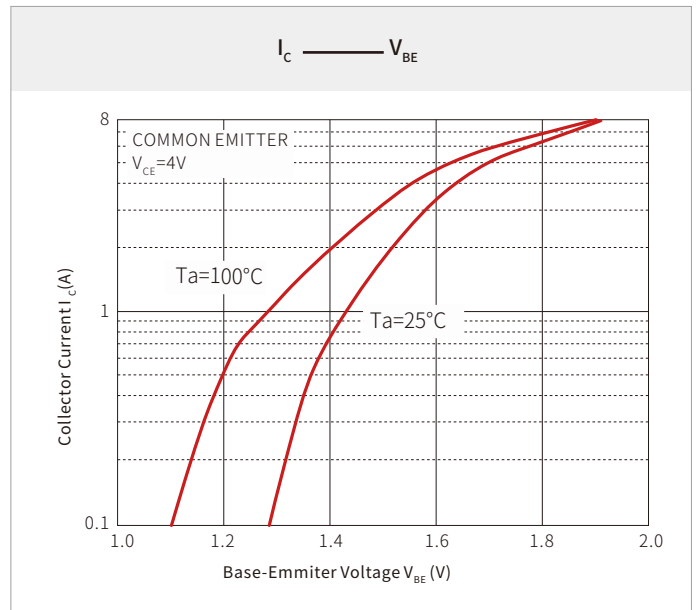
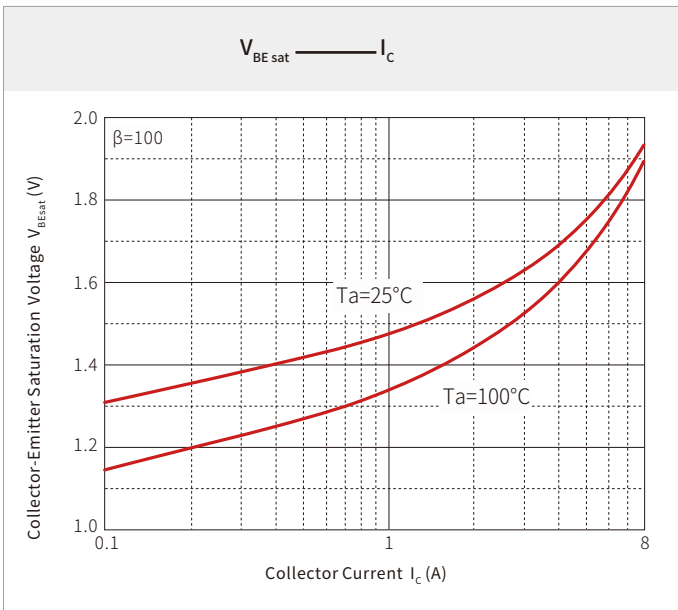
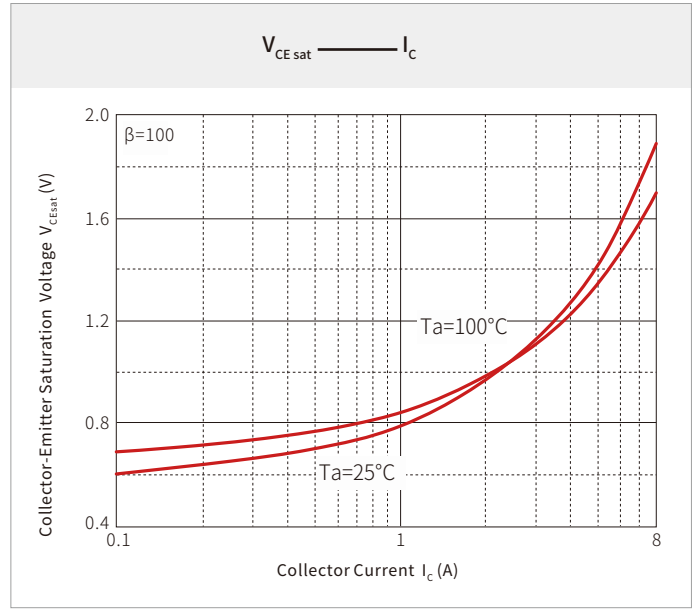
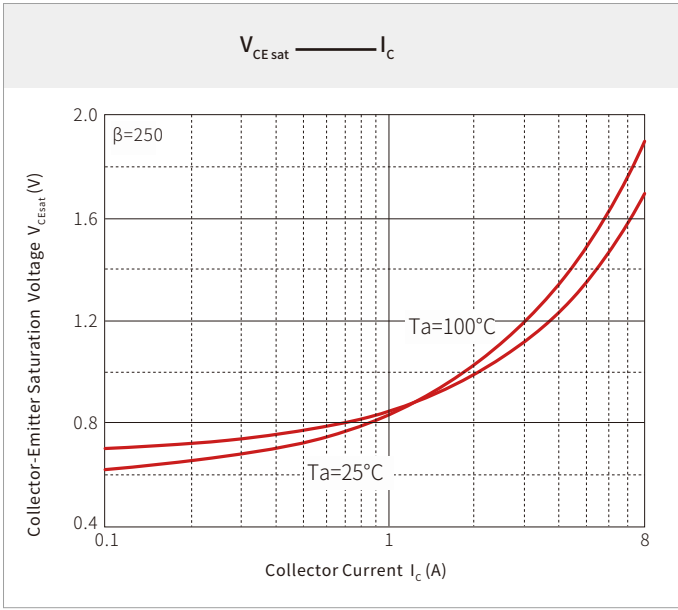
ELECTRICAL CHARACTERISTICS (T_A=25°C)

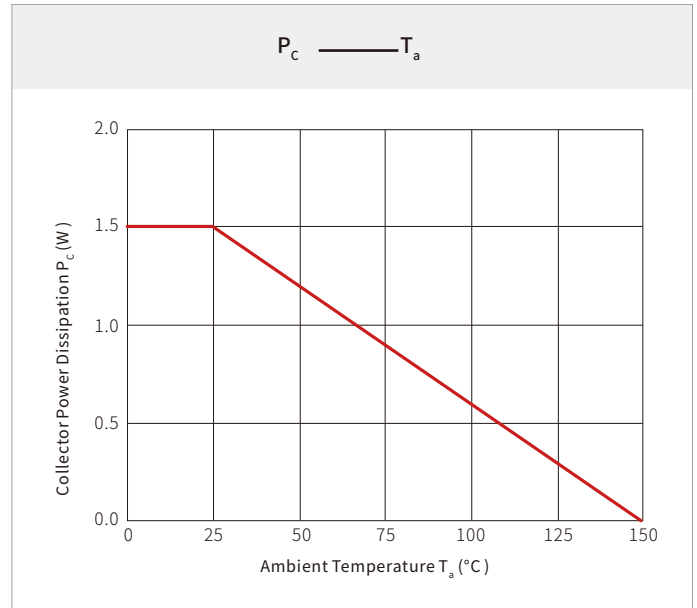
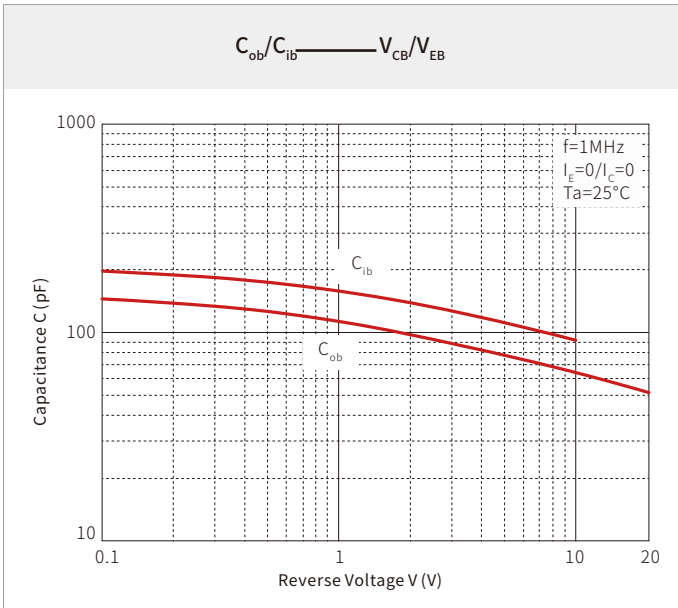
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =1mA, I _E =0	100			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =30mA, I _B =0	100			
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =3mA, I _C =0	5			
Collector cut-off current	I _{CEO}	V _{CE} =50V, I _B =0			10	μA
Collector cut-off current	I _{CBO}	V _{CB} =100V, I _E =0			10	
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			2	mA
DC current gain	h _{FE(1)}	V _{CE} =4V, I _C =4A	1000		12000	
	h _{FE(1)}	V _{CE} =4V, I _C =8A	100			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =4A, I _B =16mA			2	V
	V _{CE(sat)}	I _C =8A, I _B =80mA			4	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =8A, I _B =80mA			4.5	V
Base-emitter voltage*	V _{BE}	V _{CE} =4V, I _C =4A			2.8	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=0.1MHz			200	pF

*Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

TYPICAL CHARACTERISTICS

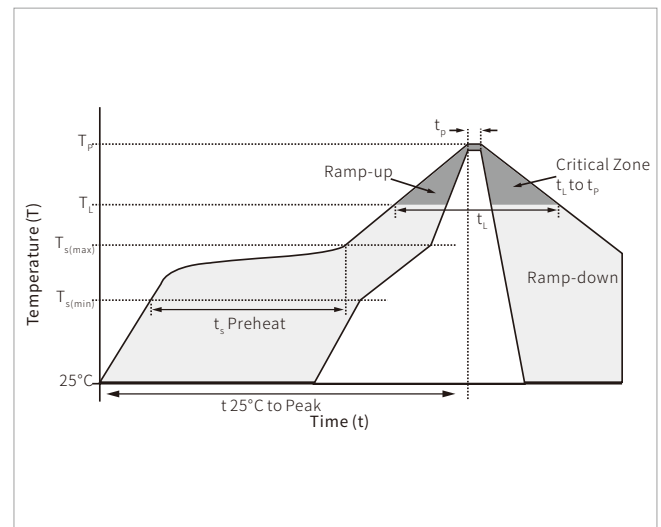




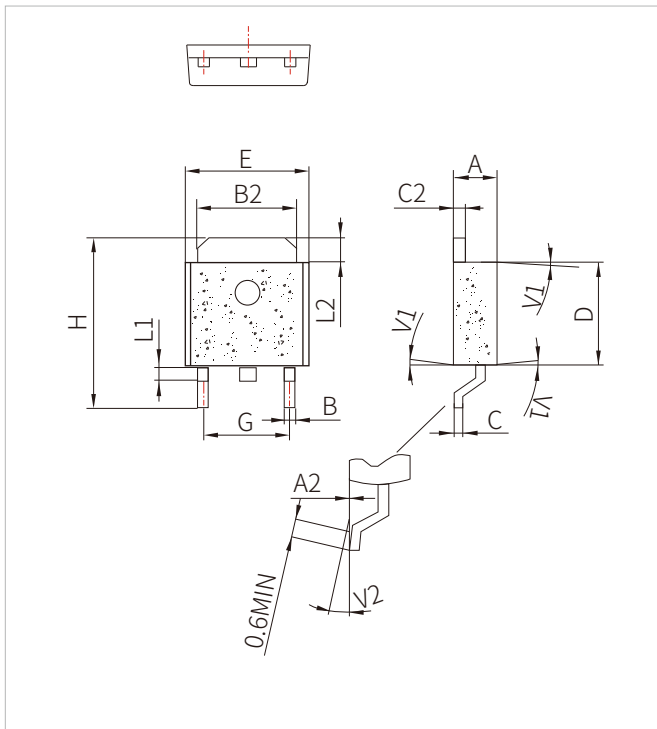


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\min)}$)	150 $^\circ\text{C}$
	Temperature Max ($T_{s(\max)}$)	200 $^\circ\text{C}$
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3 $^\circ\text{C}/\text{second}$ max
$T_{s(\max)}$ to T_L - Ramp-up Rate		3 $^\circ\text{C}/\text{second}$ max
Reflow	Temperature (T_L) (Liquidus)	217 $^\circ\text{C}$
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260 $^\circ\text{C}$
Time within 5 $^\circ\text{C}$ of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6 $^\circ\text{C}/\text{second}$ max
Time 25 $^\circ\text{C}$ to peak Temperature (T_p)		8 minutes max.
Do not exceed		260 $^\circ\text{C}$



TO-252 PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0.03		0.23	0.001		0.009
B	0.55		0.65	0.022		0.026
B2	5.10		5.40	0.200		0.213
C	0.45		0.62	0.018		0.024
C2	0.48		0.62	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.80	0.252		0.268
G	4.40		4.70	0.173	0.1	0.185
H	9.35		10.7	0.368		0.421
L1	1.30		1.70	0.051	0.143	0.067
L2	1.37		1.50	0.054		0.059
V1		4°			0.130	
V2	0°		8°	0°		8°

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Reel	Reel Size
MJD122	TO-252	 MJD122 XXXX	2500PCS	13"

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By QR Code

Website



Wechat

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