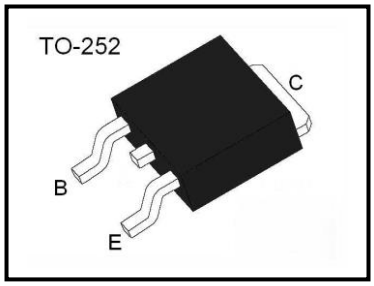
Applications

• Low Speed Switching



Features

• High current output up to 6A
• Low saturation voltage
• Electrically Similar to Popular TIP41C
• The complementary PNP types are MJD42C.

Absolute Maximum Rating (T_C=25℃, unless otherwise noted)

Parameter		Symbol	Value	Unit
Collector-base voltage		BV_{CBO}	100	V
Collector-emitter voltage		BV_{CEO}	100	V
Emitter-base voltage		BV_{EBO}	5	V
Collector current		I_C	6	A
Collector current pulse		I_{CP}	10	A
Collector powercdissipation	Ta=25℃	P_C	1.75	W
	T_C=25℃		20	
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	-55～150	℃

Electrical Characteristics (T_C=25℃, unless otherwise noted)

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

* Pulse test: PW≤300μs, duty cycle≤2% Pulse

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Typical Characteristics

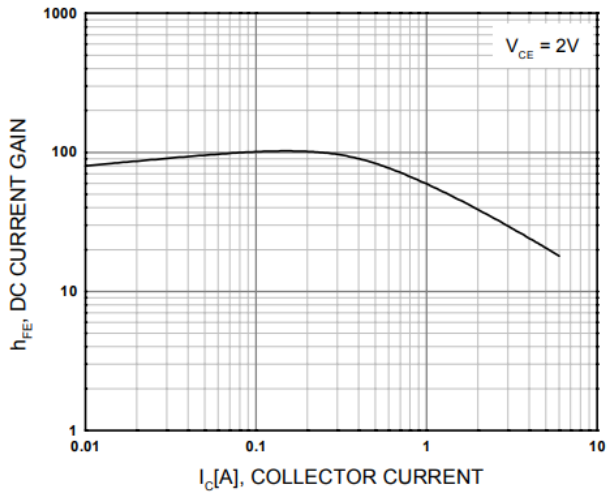


Figure 1. DC current Gain

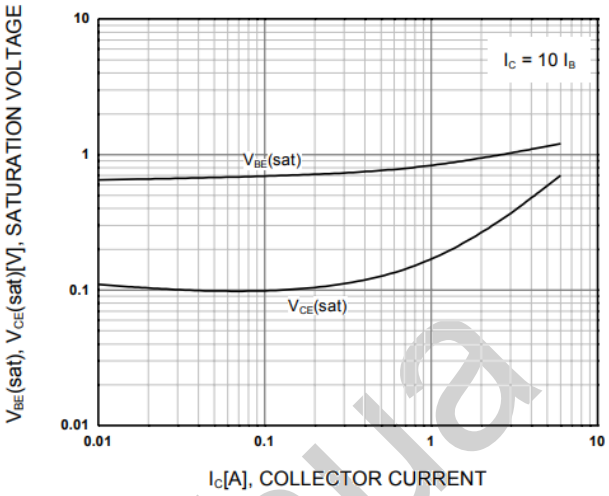


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

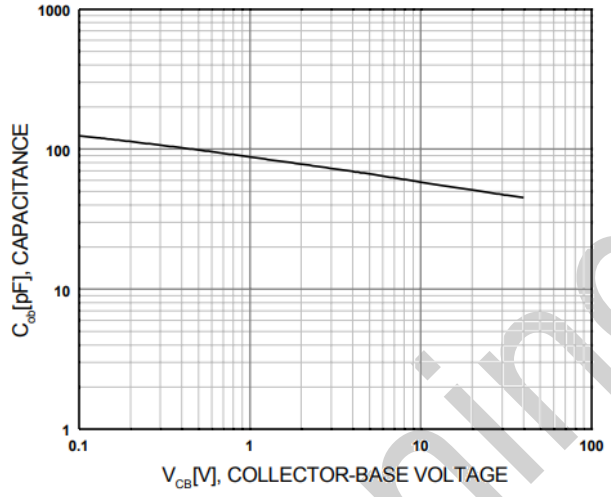


Figure 3. Collector Output Capacitance

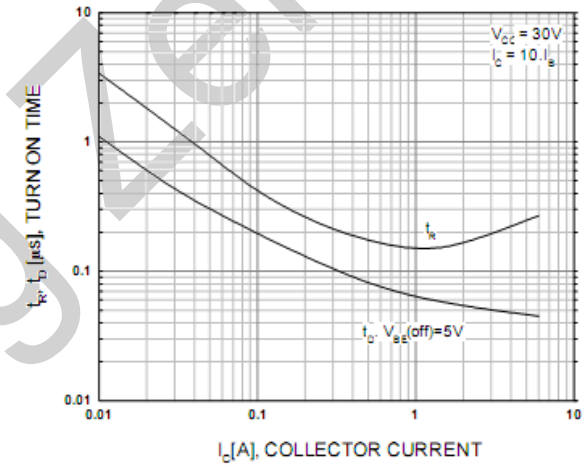


Figure 4. Turn On Time

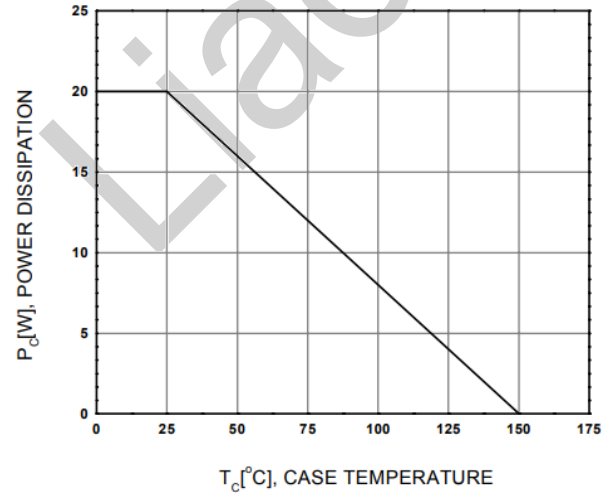


Figure 5. Power Derating

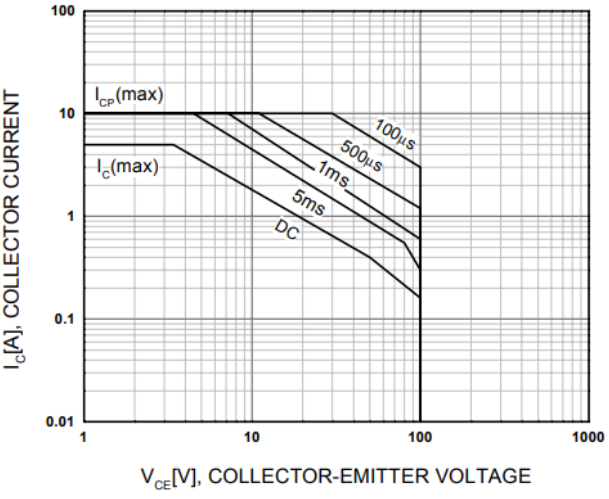
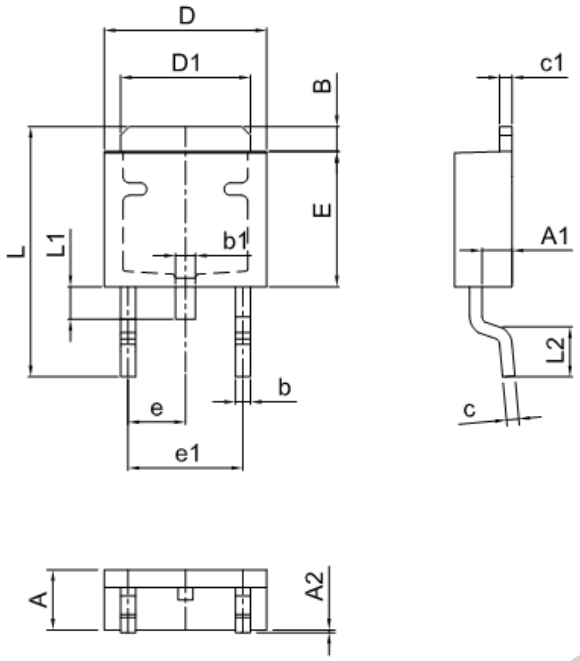


Figure 6. Safe Operating Area

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Package Dimensions



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.094
A1	1.00	1.40	0.039	0.055
A2	0.00	0.15	0.000	0.006
B	1.00	1.40	0.039	0.055
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.30	6.70	0.248	0.264
D1	5.10	5.50	0.201	0.217
E	5.30	6.00	0.209	0.236
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	9.60	10.40	0.378	0.409
L1	0.60	1.00	0.024	0.039
L2	1.40	1.70	0.055	0.063

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