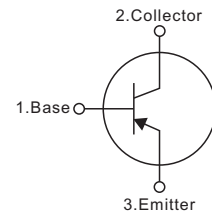


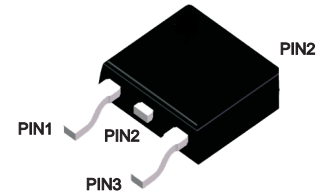
Features

- Designed for General Purpose Amplifier and Low Speed Switching Applications
- Compliant to Halogen-free



Mechanical Data

- Case: TO-252AB
- Molding compound: UL flammability classification rating 94V-0
- Marking Code: MJD42C



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

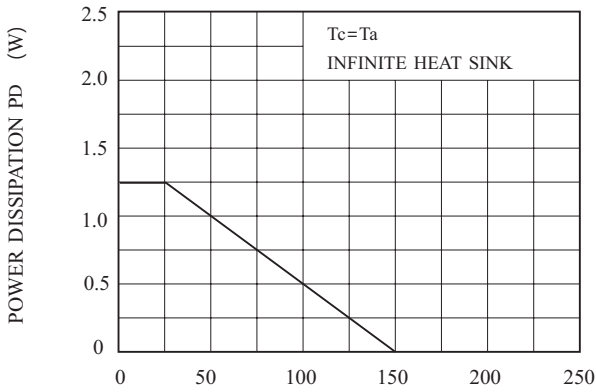
Parameter	Symbols	Ratings	Units
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-6	A
Collector Power Dissipation	P_C	1.25	W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C

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

Parameter	Symbols	Test conditions	Min	Typ	Max	Units
Collector-base breakdown voltage	V_{CBO}	$I_C = -0.1mA, I_E = 0$	-100			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -30mA, I_B = 0$	-100			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -0.1mA, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100V, I_E = 0$			-1	mA
Emitter cut-off current	I_{CEO}	$V_{CE} = -60V, I_B = 0$			-0.5	mA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.5	mA
DC current gain	h_{FE1} h_{FE2}	$V_{CE} = -4V, I_C = -0.3A$ $V_{CE} = -4V, I_C = -3.0A$	30 15		— 75	
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C = -6A, I_B = -0.6A$			-1.5	V
Base-emitter voltage	$V_{BE(SAT)}$	$I_C = -6A, I_B = -0.6A$			-2.0	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -500mA, f = 1MHz$	3			MHz

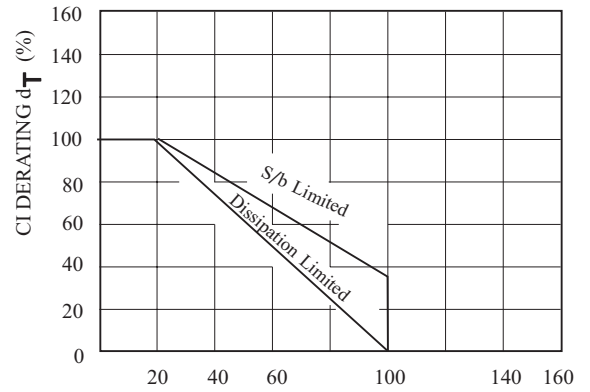
Ratings and Characteristic Curves (Ta=25°C unless otherwise noted)

Power Dissipation vs. Case Temperature



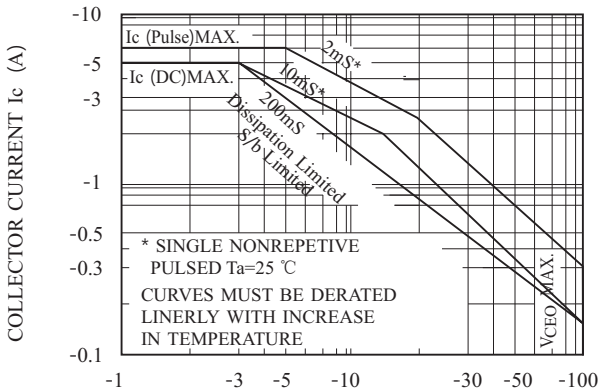
CASE TEMPERATURE T_c (°C)

D_T-T_c



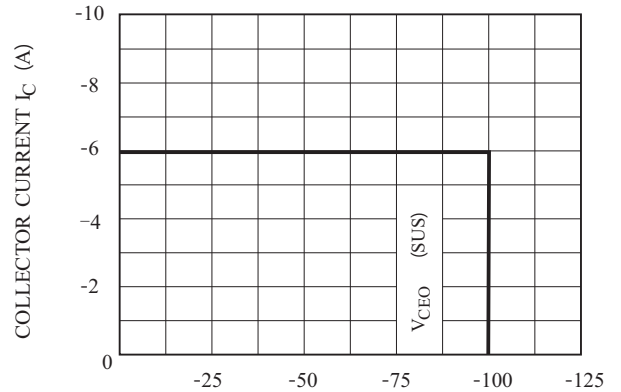
CASE TEMPERATURE T_c (°C)

SAFE OPERATING AREA



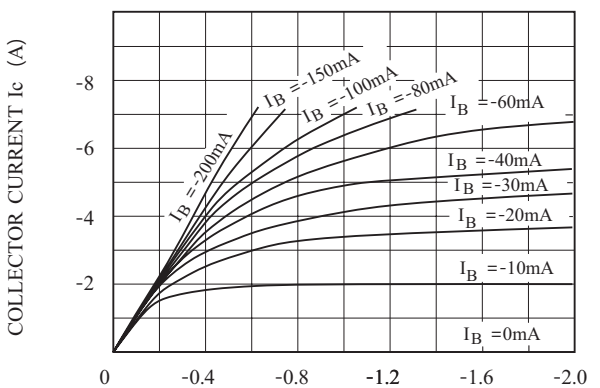
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

REVERSE BIAS SAFE OPERATING AREA



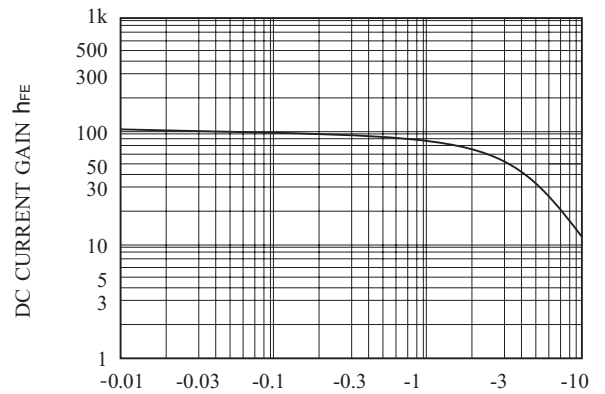
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

Ic - Vce



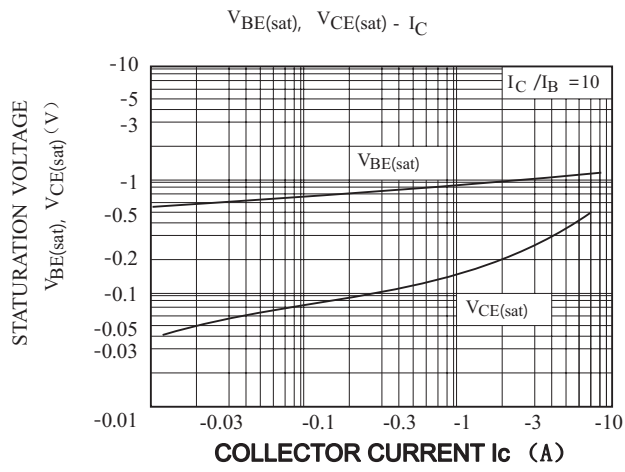
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

HFE-Ic

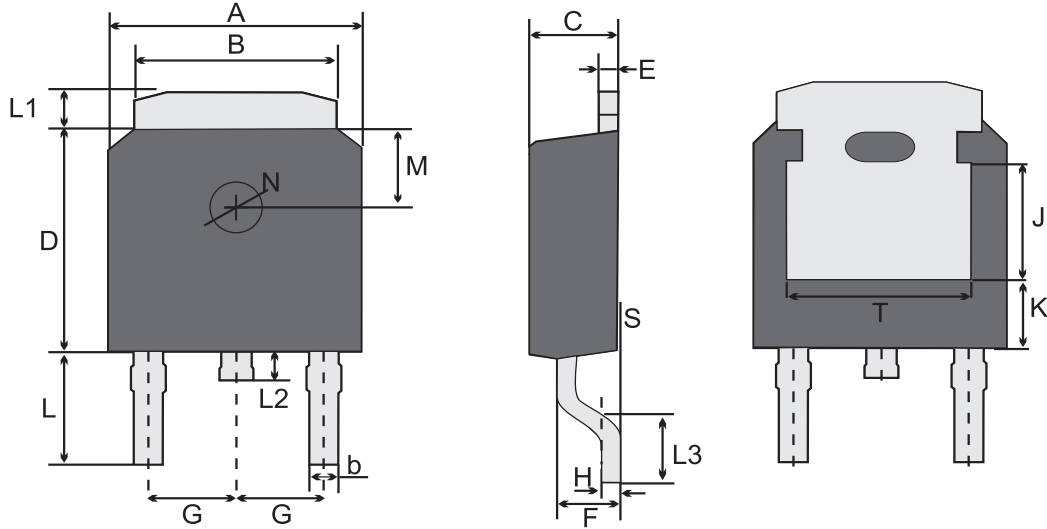


COLLECTOR CURRENT I_c (A)

Ratings and Characteristic Curves (Ta=25°C unless otherwise noted)

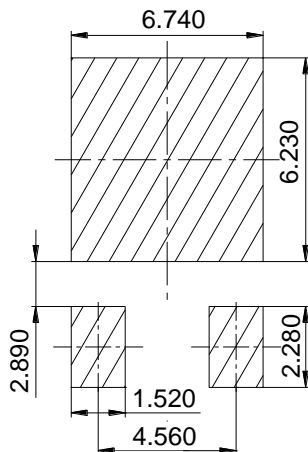


TO-252AB Package information



UNIT		A	B	b	C	D	E	F	G	H	L	L1	L2	L3	S	M	N	J	T	K
mm	max	6.7	5.53	0.86	2.5	6.3	0.61	1.87	2.3 typ.	0.55	3.1	1.2	1.0	1.75	0.1	1.8 typ.	1.3 typ.	3.2 ref.	4.83 ref.	1.8 ref.
	typ	6.6	5.33	0.76	2.3	6.1	0.51	1.57		0.50	2.95	1.0	0.8	1.30	0.05					
	min	6.3	5.13	0.66	2.1	5.9	0.41	1.27		0.45	2.7	0.8	0.6	1.0	/					
mil	max	264	218	34	98	248	24	74	91 typ.	22	121	47	39	69	3.9	71 typ.	51 typ.	126 ref.	190 ref.	71 ref.
	typ	260	210	30	91	240	20	62		20	116	39	31	51	2					
	min	248	202	26	83	232	16	50		18	106	31	24	39	/					

Suggested Pad Layout



Marking

