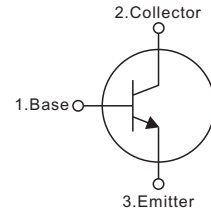


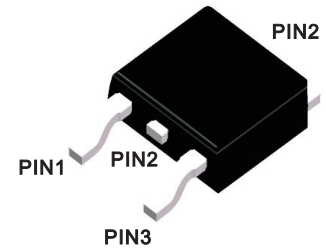
### Features

- Designed for General Purpose Amplifier and Low Speed Switching Applications
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101



### Mechanical Data

- Case: TO-252AB
- Molding compound: UL flammability classification rating 94V-0
- Marking Code: MJD41C



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

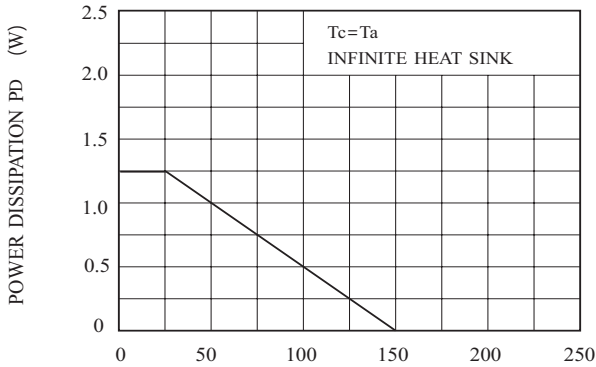
Parameter	Symbols	Ratings	Units
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current -Continuous	$I_C$	6	A
Collector Power Dissipation	$P_C$	1.25	W
Operation Junction and Storage Temperature Range	$T_J, T_{stg}$	-55 ~ +150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

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

Parameter	Symbols	Test conditions	Min	Typ	Max	Units
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=30mA, I_B=0$	100			V
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		— 155	
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C=6A, I_B=0.6A$			1.5	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=500mA$	3			MHz

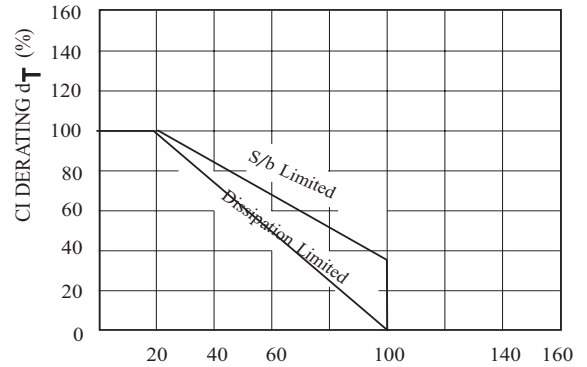
### Ratings and Characteristic Curves (Ta=25°C unless otherwise noted)

**Power Dissipation vs. Case Temperature**



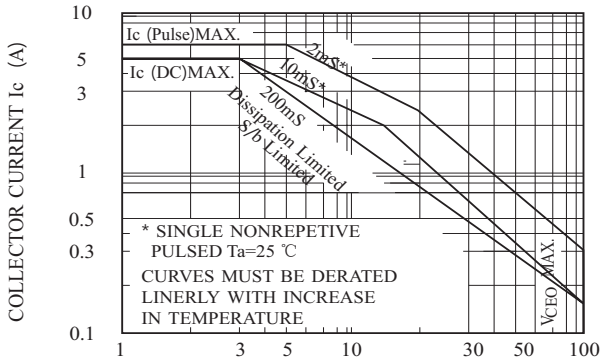
**CASE TEMPERATURE Tc (°C)**

**D<sub>T</sub>-T<sub>c</sub>**



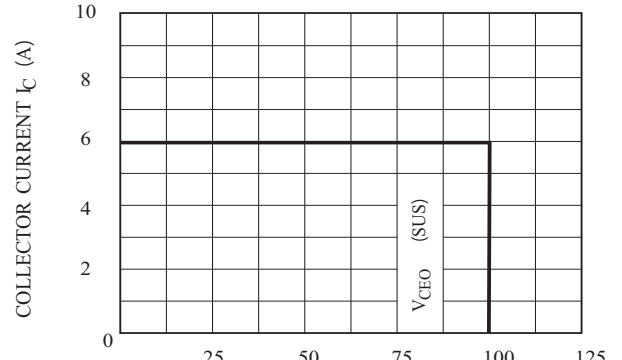
**CASE TEMPERATURE Tc (°C)**

**SAFE OPERATING AREA**



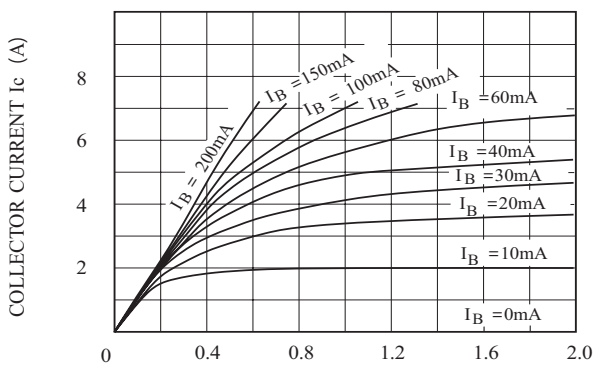
**COLLECTOR-EMITTER VOLTAGE V<sub>CE</sub> (V)**

**REVERSE BIAS SAFE OPERATING AREA**



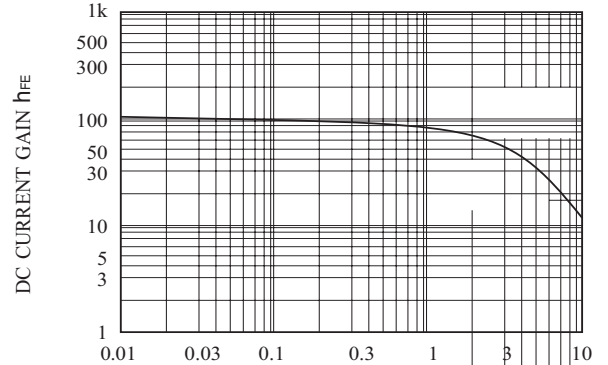
**COLLECTOR-EMITTER VOLTAGE V<sub>CE</sub> (V)**

**Ic - Vce**



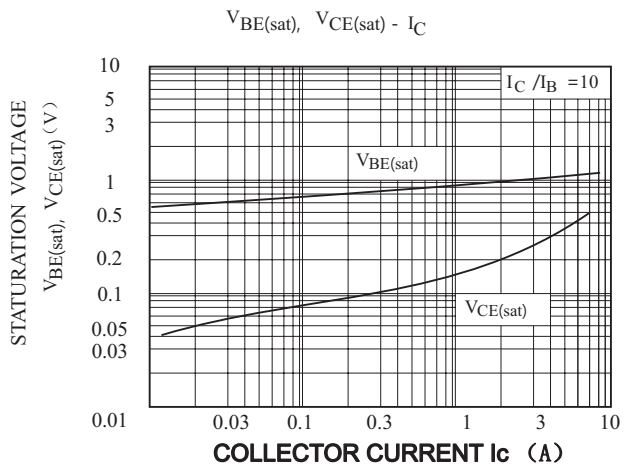
**COLLECTOR-EMITTER VOLTAGE V<sub>CE</sub> (V)**

**HFE-Ic**

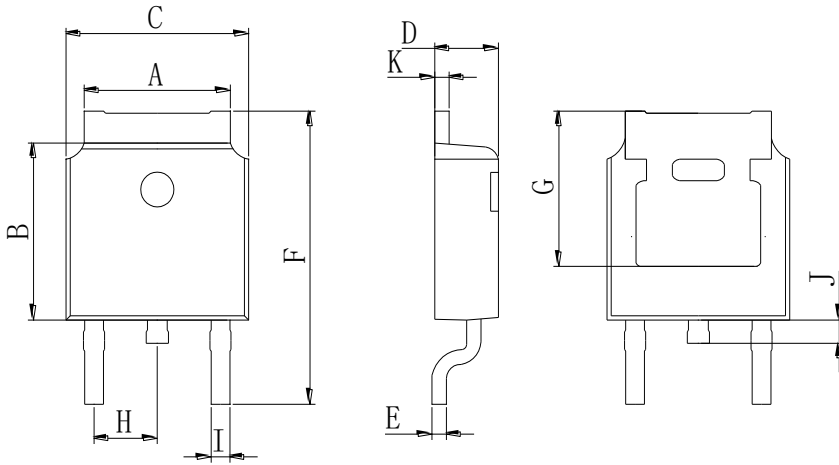


**COLLECTOR CURRENT Ic (A)**

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

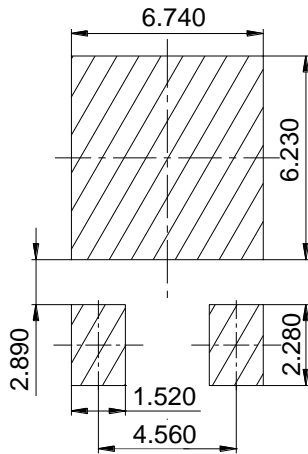


### TO-252AB Package information



TO-252AB		
A	5.05	5.65
B	5.80	6.40
C	6.25	6.85
D	2.10	2.50
E	0.40	0.86
F	9.40	10.60
G	5.05	5.65
H	2.10	2.50
I	0.66	0.90
J	0.50	1.00
K	0.40	0.61
All Dimensions in mm		

### TO-252AB Suggested Pad Layout



### Marking

