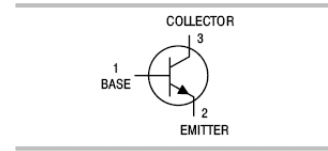




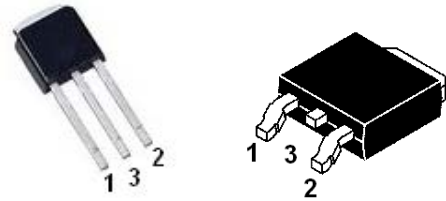
### FEATURES

- Low formed for surface mount application.
- Electrically similar to popular and TIP41C.



### APPLICATIONS

- General purpose amplifier.
- Low speed switching applications.



TO-251

TO-252

### MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	6	A
$I_{CP}$	Collector Current -Peak	10	A
$I_B$	Base Current	2	A
$P_C$	Collector Power Dissipation	1.25	W
$T_j, T_{stg}$	Junction and Storage temperature range	-65 to +150	°C

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-emitter sustaining voltage	$V_{CEO(sus)}$	$I_C=30mA, I_B=0$	100		V
Collector cut-off current	$I_{CEO}$	$V_{CE}=60V, I_B=0$		50	$\mu A$
Collector cut-off current	$I_{CES}$	$V_{CE}=100V, V_{BE}=0$		10	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$		0.5	mA
DC current gain	$h_{FE}$	$V_{CE}=4V, I_C=0.3A$ $V_{CE}=4V, I_C=3A$	30 15	75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=6A, I_B=600mA$		1.5	V
Base-emitter on voltage	$V_{BE(on)}$	$V_{CE}=6V, I_C=4A$		2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=0.5A$	3		MHz

### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

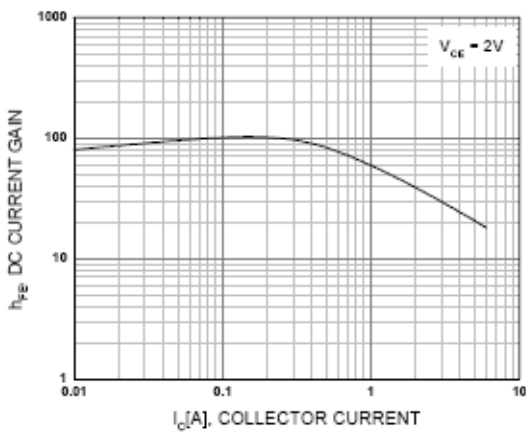


Figure 1. DC current Gain

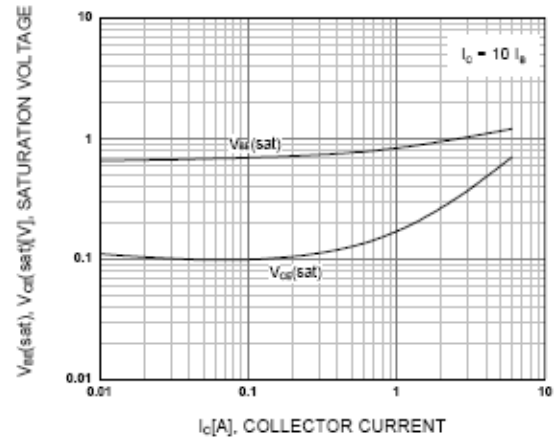


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

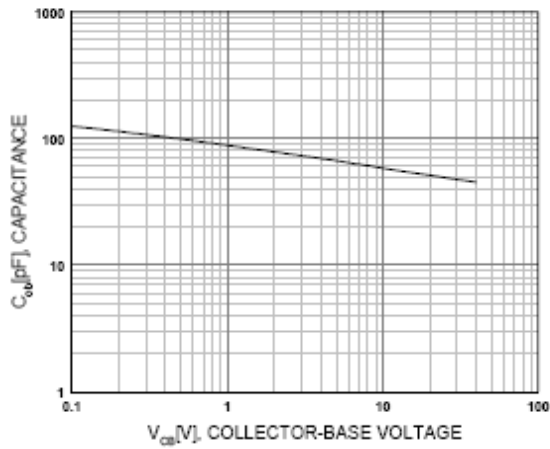


Figure 3. Collector Capacitance

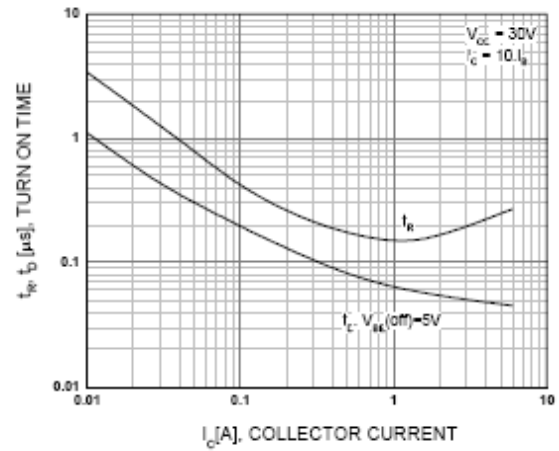


Figure 4. Turn On Time

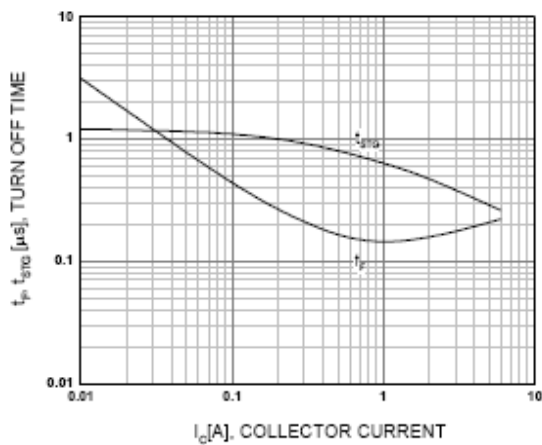


Figure 5. Turn Off Time

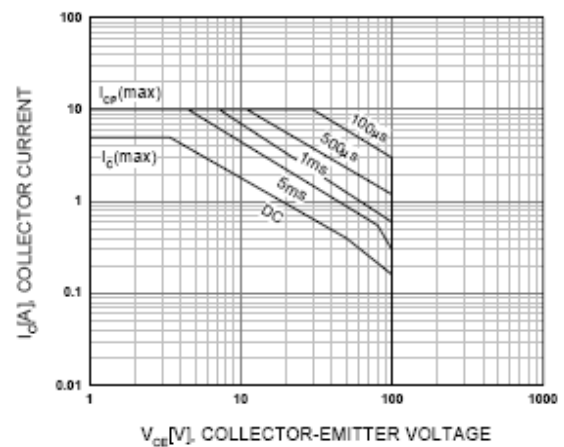
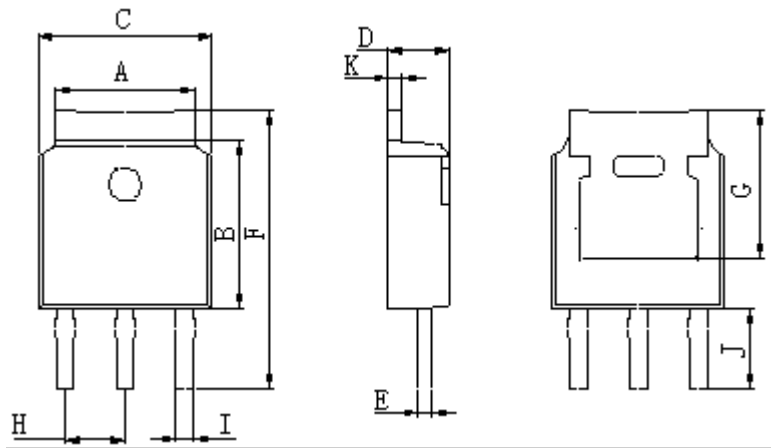


Figure 6. Safe Operating Area

### PACKAGE OUTLINE

Plastic surface mounted package

TO-251

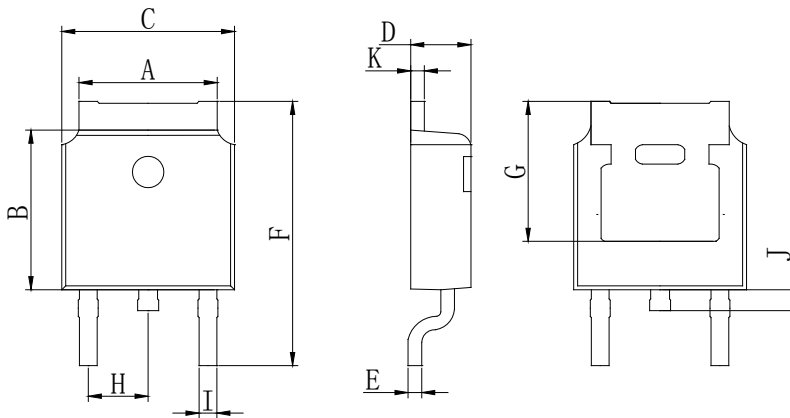


TO-251		
A	5.05	5.65
B	5.80	6.40
C	6.25	6.85
D	2.20	2.40
E	0.40	0.60
F	12.00	12.60
G	5.05	5.65
H	2.10	2.50
I	0.70	0.90
J	4.90	5.50
K	0.40	0.60
All Dimensions in mm		

### PACKAGE OUTLINE

Plastic surface mounted package

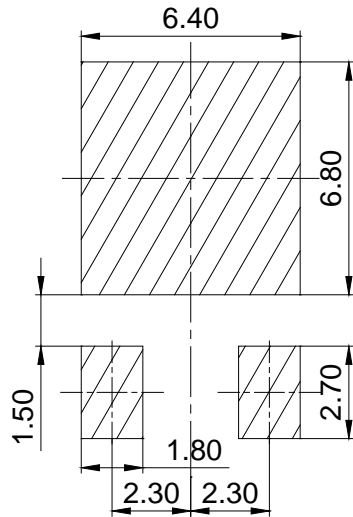
TO-252



TO-252		
A	5.05	5.65
B	5.80	6.40
C	6.25	6.85
D	2.20	2.40
E	0.40	0.60
F	9.71	10.31
G	5.05	5.65
H	2.10	2.50
I	0.70	0.90
J	0.50	0.70
K	0.40	0.60
All Dimensions in mm		



## SOLDERING FOOTPRINT



Unit: mm

## Ordering Information

Part Number	Package	Shipping	Marking Code
MJD41C	TO-251	80 pcs / Tube	MJD41C
	TO-252	80 pcs / Tube or 2500 pcs / Tape & Reel	