

Plastic-Encapsulate Transistors

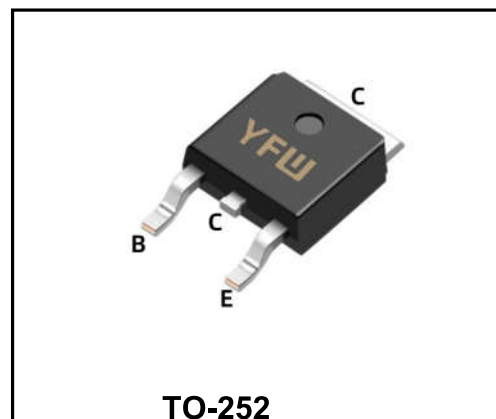
TRANSISTOR PNP

Description

✦The MJD32C is a PNP epitaxial planar transistor, designed for using in general purpose amplifier and switching applications.

Features

✦Complement to MJD31C.



Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Value	Unit
Collector-base voltage		BV_{CBO}	-100	V
Collector-emitter voltage		BV_{CEO}	-100	V
Emitter-base voltage		BV_{EBO}	-6	V
Collector current		I_C	-3	A
Collector current pulse		I_{CP}	-5	A
Base current		I_B	-1	A
Collector power dissipation	Ta=25°C	P_C	1.5	W
	Tc=25°C		15	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Collector-base breakdown voltage	$I_C = -100\mu A, I_E = 0$	BV_{CBO}	-100			V
Collector-emitter breakdown voltage	$I_C = -10mA, I_B = 0$	BV_{CEO}	-100			V
Emitter-base breakdown voltage	$I_E = -100\mu A, I_C = 0$	BV_{EBO}	-6			V
Collector cut-off current	$V_{CB} = 100V, I_E = 0$	I_{CBO}			0.5	μA
Emitter cut-off current	$V_{EB} = -6V, I_C = 0$	I_{EBO}			0.5	μA
DC current gain*	$V_{CE} = -4V, I_C = -1A$	h_{FE1}	40		300	
	$V_{CE} = -4V, I_C = -3A$	h_{FE2}	25			
Collector-emitter saturation voltage*	$I_C = -3A, I_B = -375mA$	$V_{CE(sat)}$			-1.2	V
Base-emitter on voltage	$V_{CE} = -4V, I_C = -3A$	$V_{BE(sat)}$			-1.5	V
Current gain bandwidth product	$V_{CE} = -10V, I_C = -500mA$	f_T	3			MHz

* Pulse Test: $PW \leq 300\mu s$, Duty Cycle $\leq 2\%$

Typical Characteristics

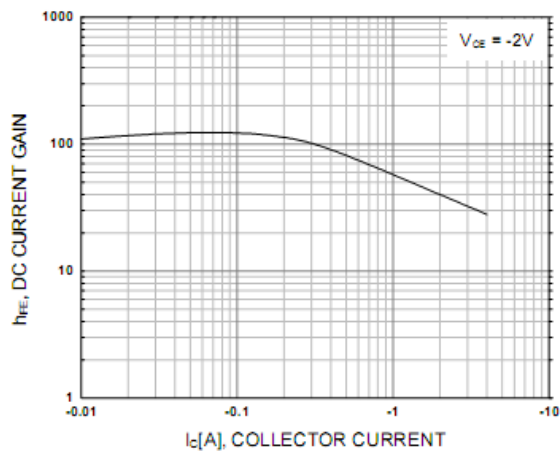


Figure 1. DC current Gain

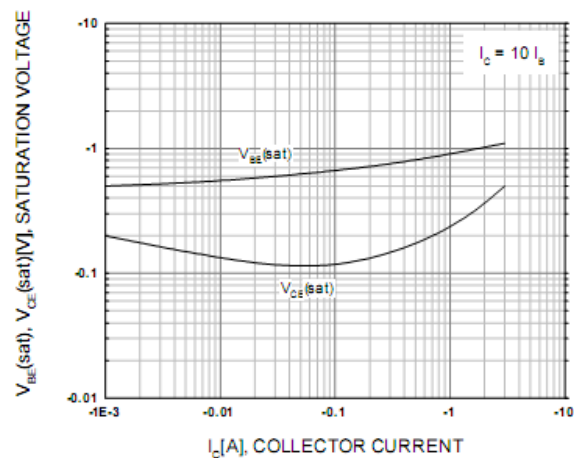


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

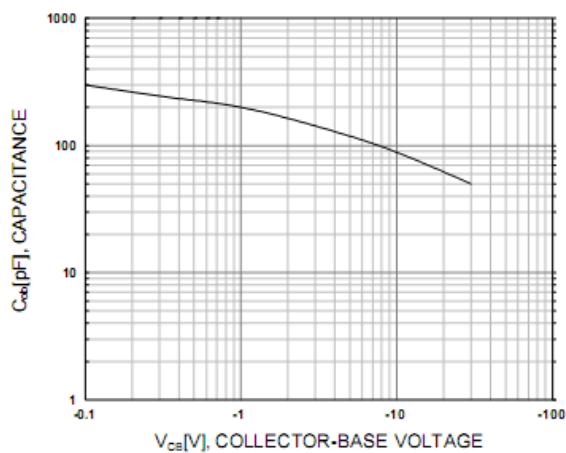


Figure 3. Collector Capacitance

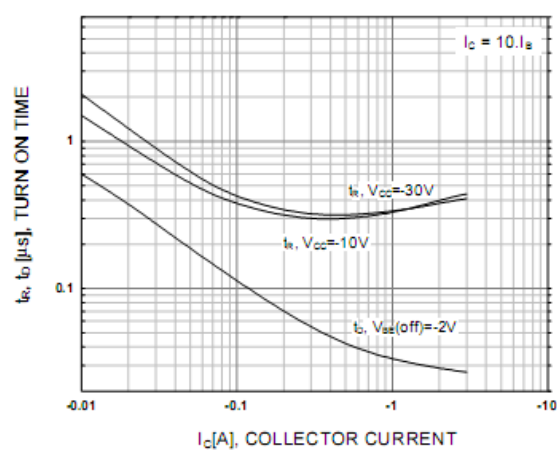


Figure 4. Turn On Time

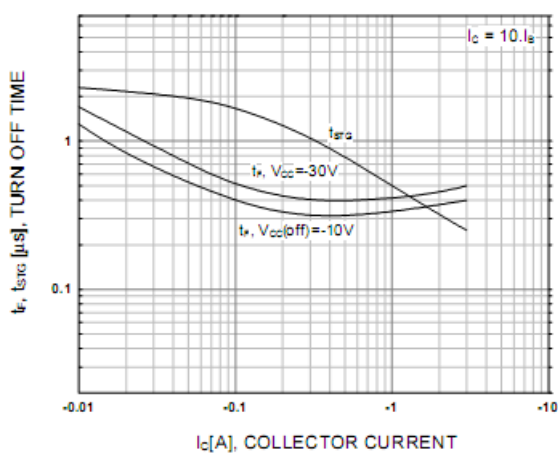


Figure 5. Turn Off Time

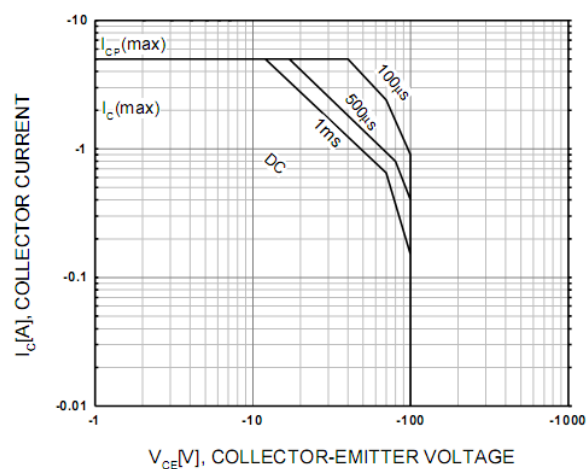
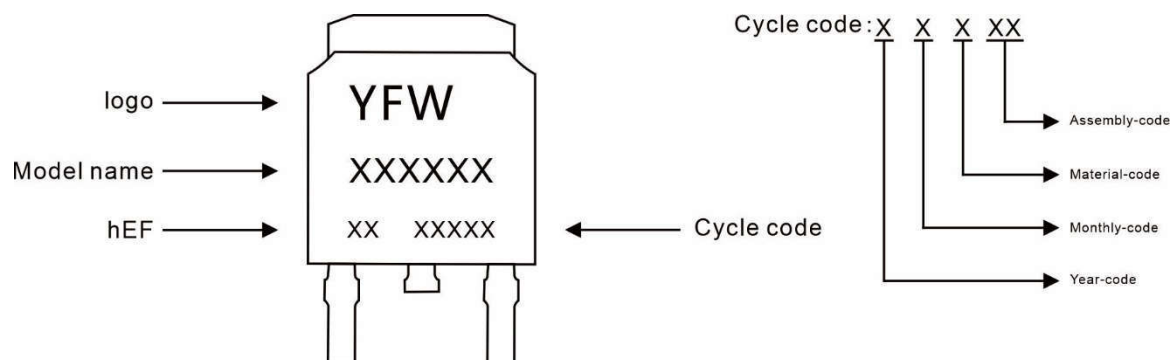


Figure 6. Safe Operating Area

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
MJD32C	TO-252	0.011oz(0.32g)	2500pcs/reel	5000pcs/box 25000pcs/Carton

Package Dimensions TO-252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
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	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	10.00	11.00	0.393	0.433
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

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