

## PNP MJ4030 - MJ4031 - MJ4032

## MEDIUM POWER COMPLEMENTARY SILICON TRANSISTORS

They are silicon epitaxial-base PNP power transistors in monolithic Darlington configuration and are mounted in Jedec TO-3 metal case.

They are intented for use as output devices in complementary general purpose amplifier applications.

The complementary NPN types are the MJ4033, MJ4034, MJ4035 Compliance to RoHS

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit		
			MJ4030	-60		
V <sub>CBO</sub>	Collector-Base Voltage	I <sub>E</sub> =0	MJ4031	-80	V	
			MJ4032	-100		
			MJ4030	-60		
V <sub>CEO</sub>	Collector-EmitterVoltage	I <sub>B</sub> =0	MJ4031	-80	V	
			MJ4032	-100		
			MJ4030			
<b>V</b> <sub>EBO</sub>	Emitter-Base Voltage	I <sub>C</sub> =0	MJ4031	-5.0	V	
			MJ4032			
I <sub>C</sub>	Collector Current			-16	А	
I <sub>B</sub>	Base Current			-0.5	А	
Ρτ	Power Dissipation	@ T <sub>C</sub> < 25°		150	W	
TJ	Junction Temperature			200	°C	
Ts	Storage Temperature			-65 to +200		

#### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R <sub>thJ-C</sub>	Thermal Resistance, Junction to Case 1.17		°C/W



# **PNP MJ4030 – MJ4031 – MJ4032**

### **ELECTRICAL CHARACTERISTICS**

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition	on(s)	Min	Тур	Max	Unit
	Collector Emitter		MJ4030	-60	-	-	
V <sub>CEO</sub>	Collector-Emitter Voltage (*)	I <sub>C</sub> =-100 mA, I <sub>B</sub> =0	MJ4031	-80	-	-	V
			MJ4032	-100			
	Collector Cutoff Current	V <sub>CE</sub> =-30 Vdc, I <sub>B</sub> =0	MJ4030	-	-		
I <sub>CEO</sub>		V <sub>CE</sub> =-40 Vdc, I <sub>B</sub> =0	MJ4031	-	-	-3.0	mA
		V <sub>CE</sub> =-50 V, I <sub>B</sub> =0	MJ4032	-	-		
			MJ4030				
I <sub>EBO</sub>	Emitter Cutoff Current	$V_{BE}$ =-5.0 V, I <sub>C</sub> =0	MJ4031		-5.0	mA	
			MJ4032				
		V <sub>CB</sub> =-60 V R <sub>BE</sub> =1.0 kΩ	MJ4030	-	-	-1.0	
I <sub>CER</sub> Collector-Emitter Lea Current		$V_{CB}$ =-80 V R <sub>BE</sub> =1.0 kΩ	MJ4031	-	-		
	Collector-Emitter Leakage Current	$V_{CB}$ =-100 V R <sub>BE</sub> =1.0 kΩ	MJ4032				mA
		V <sub>CB</sub> =-60 V R <sub>BE</sub> =1.0 kΩ T <sub>C</sub> =150°C	MJ4030	-	-	-5.0	
		V <sub>CB</sub> =-80 V R <sub>BE</sub> =1.0 kΩ T <sub>C</sub> =150°C	MJ4031	-	-		
		V <sub>CB</sub> =-100 V R <sub>BE</sub> =1.0 kΩ T <sub>C</sub> =150°C	MJ4032				
V <sub>CE(SAT)</sub>	Collector-Emitter saturation Voltage (*)	I <sub>C</sub> =-10 A I <sub>B</sub> =-40 mA	MJ4030 MJ4031 MJ4032	-	-	-2.5 -4.0	
		I <sub>C</sub> =-16 A I <sub>B</sub> =-80 mA	MJ4032 MJ4030 MJ4031 MJ4032	_	-		V
V <sub>BE</sub>	Base-Emitter Voltage (*)	I <sub>C</sub> =-10 A V <sub>CE</sub> =-3.0V	MJ4030 MJ4031 MJ4032	-	-	-3	V
h <sub>FE</sub>	DC Current Gain (*)	V <sub>CE</sub> =-10 V I <sub>C</sub> =-3.0 A	MJ4030 MJ4031 MJ4032	1000	-	-	-

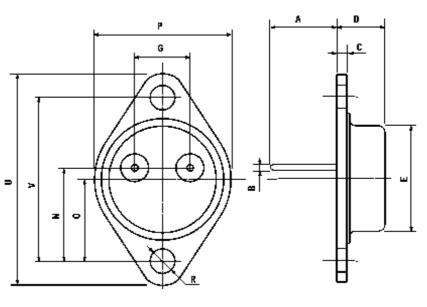
(\*) Pulse Width  $\approx 300~\mu s,$  Duty Cycle  $\angle$  2.0%



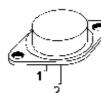
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### **MECHANICAL DATA CASE TO-3**

DIMENSIONS (mm)			
	min	max	
A	11	13.10	
В	0.97	1.15	
С	1.5	1.65	
D	8.32	8.92	
F	19	20	
G	10.70	11.1	
N	16.50	17.20	
Р	25	26	
R	4	4.09	
U	38.50	39.30	
V	30	30.30	



Pin 1 :	Base
Pin 2 :	Emitter
Case :	Collector



#### **Revised September 2012**

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info@comsetsemi.com