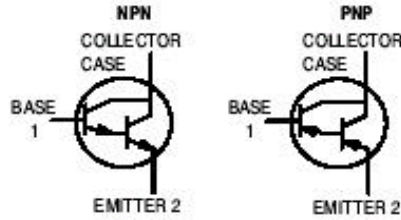
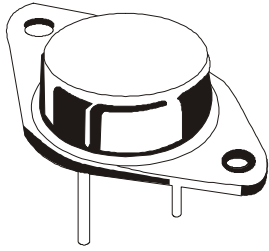


**SILICON PLANAR DARLINGTON POWER TRANSISTORS**

**MJ11015 PNP**  
**MJ11016 NPN**



**Metal Can Package**  
**TO-3**

Designed for use as Output Devices in Complementary General Purpose Amplifier Applications.

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V <sub>CBO</sub>	120	V
Collector Emitter Voltage	V <sub>CEO</sub>	120	V
Emitter Base Voltage	V <sub>EBO</sub>	5	V
Collector Current Continuous	I <sub>C</sub>	30	A
Base Current	I <sub>B</sub>	1	A
Collector Power Dissipation at T <sub>c</sub> =25°C	P <sub>C</sub>	200	W
Junction Temperature	T <sub>j</sub>	200	°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to +200	°C

**THERMAL RESISTANCE**

Junction to Case	R <sub>th(j-c)</sub>	0.87	°C/W
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**ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless specified otherwise)**

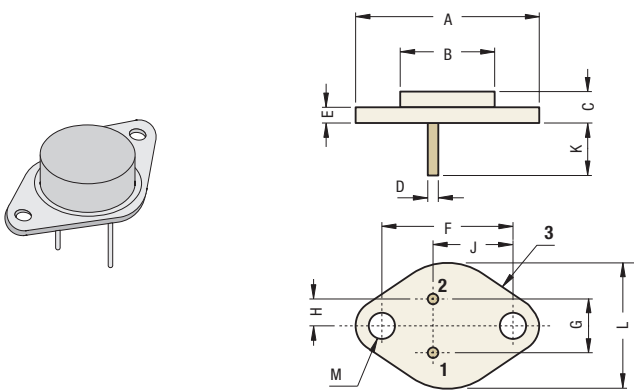
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Voltage	*V <sub>CEO</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =0	120		V
Collector Emitter Saturation Voltage	*V <sub>CE (Sat)</sub>	I <sub>C</sub> =20A, I <sub>B</sub> =0.2A		3.0	V
		I <sub>C</sub> =30A, I <sub>B</sub> =0.3A		4.0	V
Base Emitter Saturation Voltage	*V <sub>BE (Sat)</sub>	I <sub>C</sub> =20A, I <sub>B</sub> =0.2A		3.5	V
		I <sub>C</sub> =30A, I <sub>B</sub> =0.3A		5.0	V
Collector Cut Off Current	I <sub>CER</sub>	V <sub>CE</sub> =120V, R <sub>BE</sub> =1KΩ		1.0	mA
		V <sub>CE</sub> =120V, R <sub>BE</sub> =1KΩ, T <sub>C</sub> =150°C		5.0	mA
Collector Cut Off Current	I <sub>CEO</sub>	V <sub>CE</sub> =50V, I <sub>B</sub> =0		1.0	mA
Emitter Cut Off Current	I <sub>EBO</sub>	V <sub>BE</sub> =5V, I <sub>C</sub> =0		5.0	mA
DC Current Gain	*h <sub>FE</sub>	I <sub>C</sub> =20A, V <sub>CE</sub> =5V	1000		
		I <sub>C</sub> =30A, V <sub>CE</sub> =5V	200		

\*Pulse Test: Pulse Width ≤300ms, Duty Cycle ≤2%

MJ11015 PNP  
 MJ11016 NPN

TO-3  
 Metal Can Package

### TO-3 Metal Can Package



DIM	Min	Max
A	—	40.00
B	—	25.00
C	6.35	11.43
D	0.70	1.09
E	—	3.80
F	29.90	30.40

DIM	Min	Max
G	10.67	11.18
H	5.21	5.72
J	16.64	17.15
K	7.92	—
L	—	26.68
M	3.84	4.09

Pin Configuration Pin 1: Base Pin 2: Emitter Pin 3: Collector

### ... Packaging Specifications

Package / Case Type	Packaging Type	Std. Packing		Inner Carton		Outer Carton	
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)

#### Metal Can Packages

TO-3	Bulk	100	0.1K	32 x 20 x 4.5	1.4	1.6K	43 x 40 x 35	22.3
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### **Component Disposal Instructions**

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### **Disclaimer**

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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