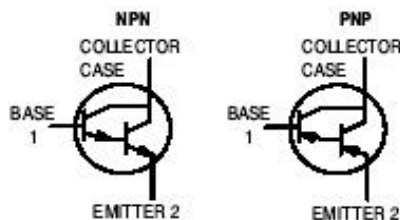
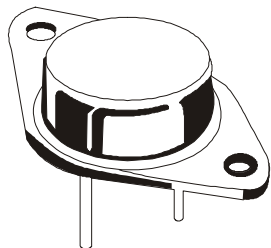


SILICON PLANAR DARLINGTON POWER TRANSISTORS

MJ11015 PNP

MJ11016 NPN

Metal Can Package
TO-3



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

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	120	V
Collector Emitter Voltage	V_{CEO}	120	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current Continuous	I_C	30	A
Base Current	I_B	1	A
Collector Power Dissipation at $T_c=25^\circ\text{C}$	P_C	200	W
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +200	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	0.87	$^\circ\text{C/W}$
------------------	---------------	------	--------------------

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

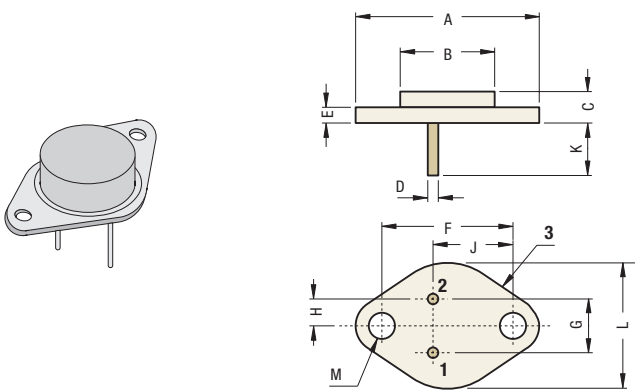
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Voltage	$*V_{CEO}$	$I_C=100\text{mA}, I_B=0$	120		V
Collector Emitter Saturation Voltage	$*V_{CE(Sat)}$	$I_C=20\text{A}, I_B=0.2\text{A}$		3.0	V
		$I_C=30\text{A}, I_B=0.3\text{A}$		4.0	V
Base Emitter Saturation Voltage	$*V_{BE(Sat)}$	$I_C=20\text{A}, I_B=0.2\text{A}$		3.5	V
		$I_C=30\text{A}, I_B=0.3\text{A}$		5.0	V
Collector Cut Off Current	I_{CER}	$V_{CE}=120\text{V}, R_{BE}=1\text{K}\Omega$		1.0	mA
		$V_{CE}=120\text{V}, R_{BE}=1\text{K}\Omega, T_c=150^\circ\text{C}$		5.0	mA
Collector Cut Off Current	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$		1.0	mA
Emitter Cut Off Current	I_{EBO}	$V_{BE}=5\text{V}, I_C=0$		5.0	mA
DC Current Gain	$*h_{FE}$	$I_C=20\text{A}, V_{CE}=5\text{V}$	1000		
		$I_C=30\text{A}, V_{CE}=5\text{V}$	200		

*Pulse Test: Pulse Width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$

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 Qty	Inner Carton			Outer Carton		
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)

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
------	------	-----	------	---------------	-----	------	--------------	------

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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.

Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119

email@cdil.com www.cdilsemi.com