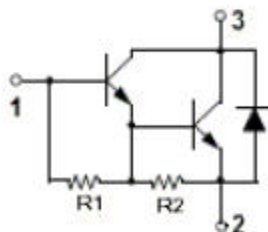
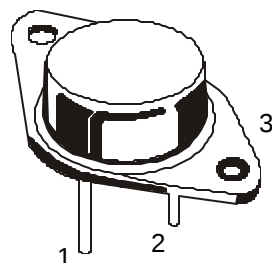


NPN DARLINGTON POWER TRANSISTOR



PIN
1. BASE
2. EMITTER
3. COLLECTOR (CASE)

MJ11014

TO-3

Compliment to PNP MJ11013

Designed for use as output devices in complimentary general purpose amplifier applications.

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

PARAMETER	SYMBOL	VALUE	UNIT
Collector - Base Voltage	V_{CBO}	90	V
Collector - Emitter Voltage	V_{CEO}	90	V
Emitter - Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	30	A
Collector Current - Peak	I_{CM}	50	A
Base Current - Continuous	I_B	1	A
Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	P_C	200	W
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +200	$^\circ\text{C}$

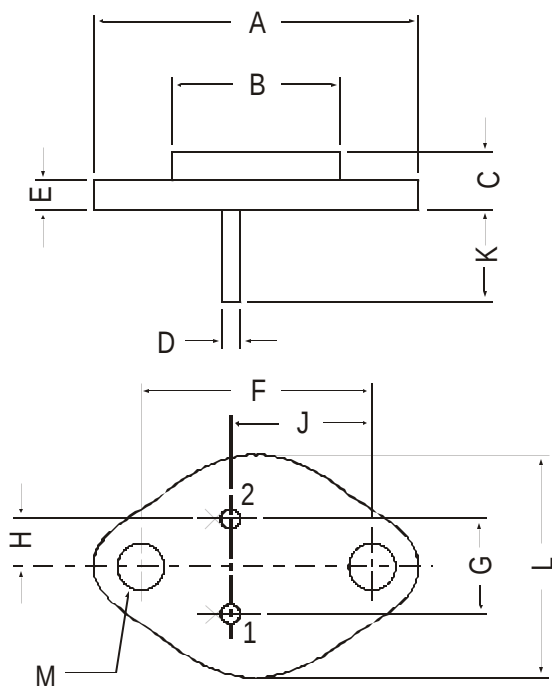
THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX	UNIT
Thermal Resistance, Junction to Case	$R_{th\ j-c}$	0.87	$^\circ\text{C/W}$

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

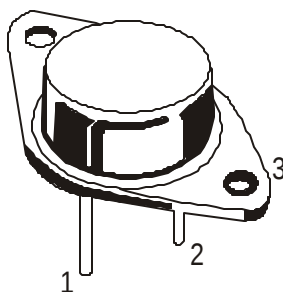
PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}; I_B = 0$	90			V
Collector - Emitter Saturation Voltage	$V_{CE(Sat)-1}$	$I_C = 20\text{A}; I_B = 0.2\text{A}$			3	V
Collector - Emitter Saturation Voltage	$V_{CE(Sat)-2}$	$I_C = 30\text{A}; I_B = 0.3\text{A}$			4	V
Base - Emitter Saturation Voltage	$V_{BE(Sat)-1}$	$I_C = 20\text{A}; I_B = 0.2\text{A}$			3.5	V
Base - Emitter Saturation Voltage	$V_{BE(Sat)-2}$	$I_C = 30\text{A}; I_B = 0.3\text{A}$			5	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 90\text{V}; I_E = 0$			1	mA
		$V_{CB}=90\text{V}; I_E=0; T_C=150^\circ\text{C}$			5	mA
Collector Cutoff Current	I_{CEO}	$V_{CE} = 90\text{V}; I_B = 0$			1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}; I_C = 0$			5	mA
DC Current Gain	h_{FE-1}	$I_C = 20\text{A}; V_{CE} = 5\text{V}$	1000			
DC Current Gain	h_{FE-2}	$I_C = 30\text{V}; V_{CE} = 5\text{V}$	200			

TO-3 Metal Can Package



All dimensions in mm.

DIM	MIN.	MAX.
A	—	39.37
B	—	22.22
C	6.35	8.50
D	0.96	1.09
E	—	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	—	26.67
M	3.84	4.19

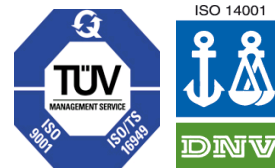


PIN CONFIGURATION

1. BASE
2. EMITTER
3. COLLECTOR



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Customer Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's 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 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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Continental Device India Pvt. 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.cdil.com

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