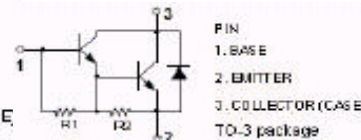
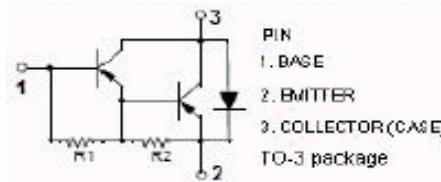
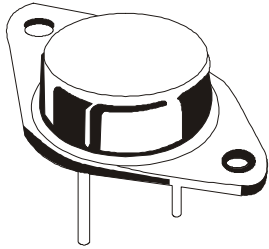


SILICON PLANAR DARLINGTON POWER TRANSISTORS

MJ11032 NPN
MJ11033 PNP



**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	50	A
Collector Current Continuous	I_{CM}	100	A
Base Current	I_B	2	A
Collector Power Dissipation at $T_c=25^\circ\text{C}$	P_C	300	W
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +200	$^\circ\text{C}$

THERMAL RESISTANCE

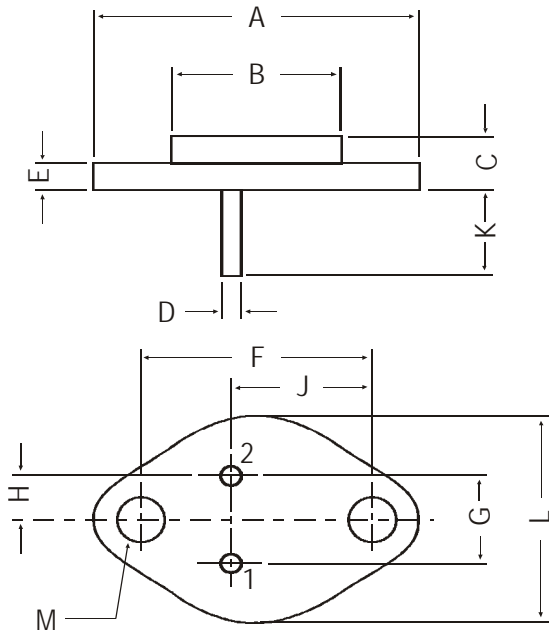
Junction to Case	$R_{th(j-c)}$	0.584	$^\circ\text{C/W}$
------------------	---------------	-------	--------------------

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	$*V_{CE(Sat)}$	$I_C=25\text{A}, I_B=250\text{mA}$		2.5	V
		$I_C=50\text{A}, I_B=500\text{mA}$		3.5	V
Base Emitter Saturation Voltage	$*V_{BE(Sat)}$	$I_C=25\text{A}, I_B=250\text{mA}$		3.0	V
		$I_C=50\text{A}, I_B=500\text{mA}$		4.5	V
Collector Cut Off Current	I_{CER}	$V_{CE}=120\text{V}, R_{BE}=1\text{K}\Omega$		2.0	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}	$V_{CE}=50\text{V}, I_B=0$		2.0	mA
Emitter Cut Off Current	I_{EBO}	$V_{BE}=5\text{V}, I_C=0$		5.0	mA
DC Current Gain	$*h_{FE}$	$I_C=25\text{A}, V_{CE}=5\text{V}$	1000	18000	
		$I_C=50\text{A}, V_{CE}=5\text{V}$	400		

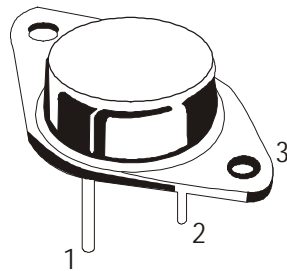
*Pulse Test: Pulse Width $\leq 300\text{ms}$, Duty Cycle $\leq 2\%$

TO-3 Metal Can Package



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

All dimensions in mm.



PIN CONFIGURATION

1. BASE
2. EMITTER
3. COLLECTOR

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-3	100 pcs/pkt	1.3 kg/100 pcs	12.5" x 8" x 1.8"	0.1K	17" x 11.5" x 21"	2K	27.5 kgs

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 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).

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