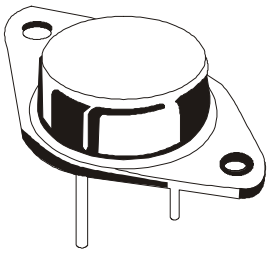
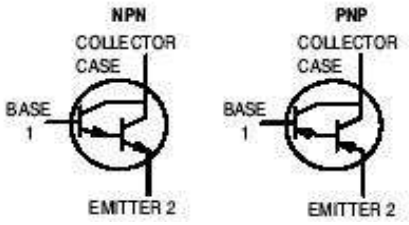
SILICON PLANAR DARLINGTON POWER TRANSISTORS

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=25ºC)

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=25ºC	P_C	200	W
Junction Temperature	T_j	200	ºC
Storage Temperature Range	T_{stg}	- 55 to +200	ºC

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	0.87	ºC/W

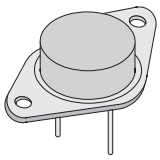
ELECTRICAL CHARACTERISTICS (T_C=25ºC unless specified otherwise)

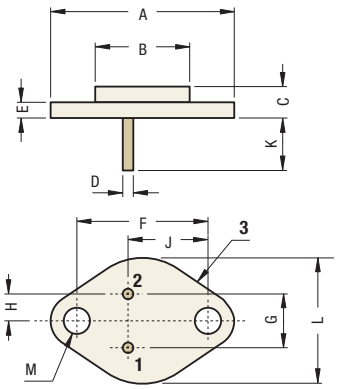
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Emitter Voltage	*V_{CEO}	I_C=100mA, I_B=0	120		V
Collector Emitter Saturation Voltage	*$V_{CE\ (Sat)}$	I_C=20A, I_B=0.2A		3.0	V
		I_C=30A, I_B=0.3A		4.0	V
Base Emitter Saturation Voltage	*$V_{BE\ (Sat)}$	I_C=20A, I_B=0.2A		3.5	V
		I_C=30A, I_B=0.3A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

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

MJ11015_11016 Rev310310E

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)	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

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