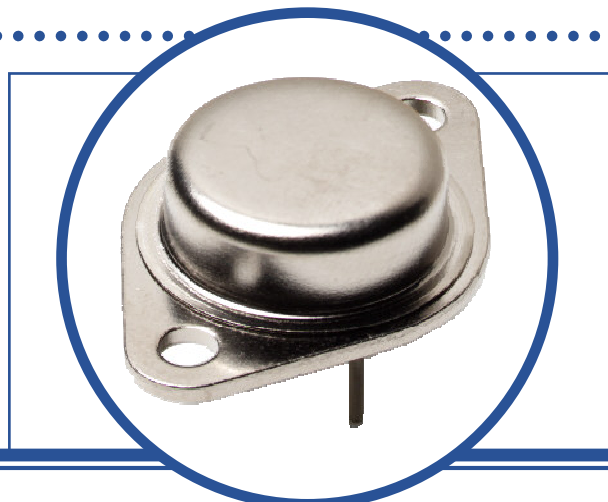


SILICON DARLINGTON NPN TRANSISTOR

MJ4035

- Monolithic Darlington Configuration With Integrated Anti-Parallel Collector-Emitter Diode
- Hermetic TO3 Metal Package.
- Ideally Suited For General Purpose Switching And Amplifier Applications
- Screening Options Available



ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	100V
V_{CEO}	Collector – Emitter Voltage	100V
V_{EBO}	Emitter – Base Voltage	5V
I_C	Continuous Collector Current	16A
I_B	Base Current	0.5A
P_D	Total Power Dissipation at $T_C = 25^\circ\text{C}$	150W
	Derate Above 25°C	0.86W/ $^\circ\text{C}$
T_J	Junction Temperature Range	-65 to $+200^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65 to $+200^\circ\text{C}$

THERMAL PROPERTIES

Symbols	Parameters	Min.	Typ.	Max.	Units
$R_{\theta JC}$	Thermal Resistance, Junction To Case			1.17	$^\circ\text{C/W}$

Semelab Limited reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

SILICON DARLINGTON NPN TRANSISTOR MJ4035

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise stated)

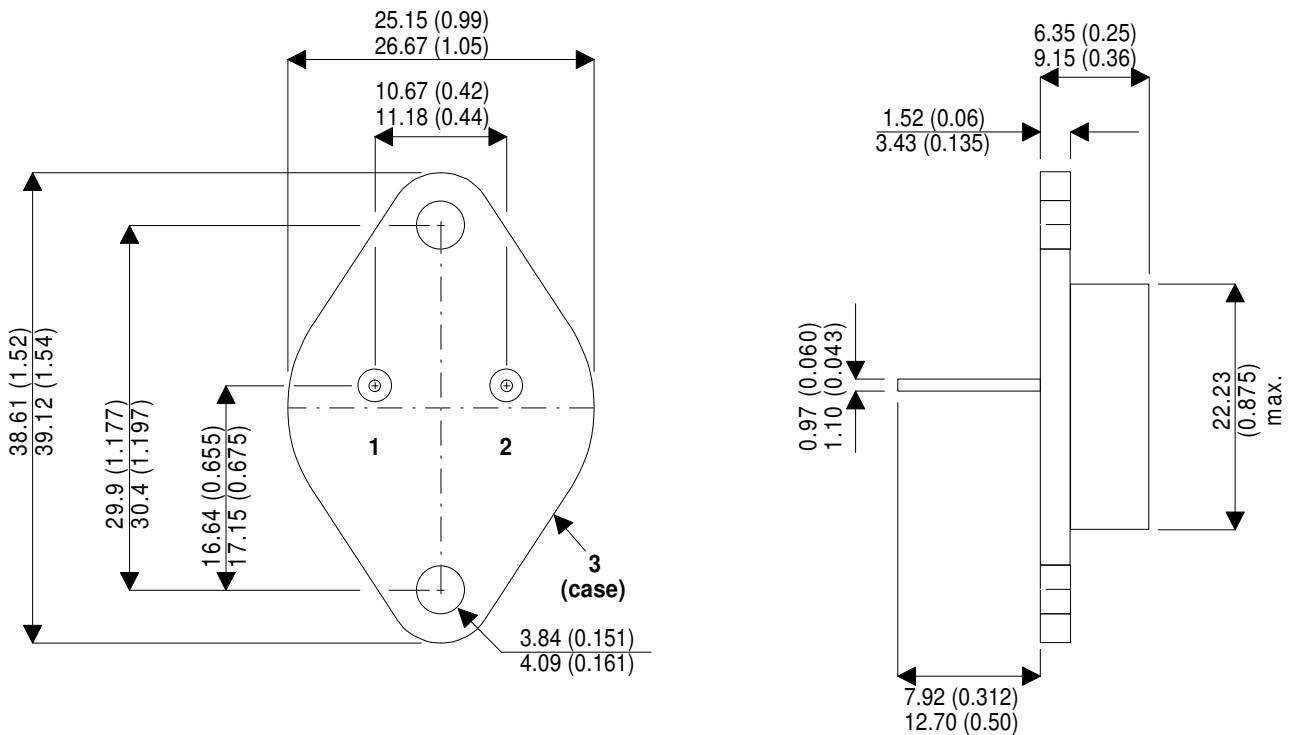
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
V _{(BR)CEO} ⁽¹⁾	Collector-Emitter Breakdown Voltage	I _C = 100mA	100			V
I _{CER}	Collector Cut-Off Current	V _{CE} = 100V R _{BE} = 1.0KΩ T _C = 150°C			1.0 5	mA
I _{CEO}	Collector Cut-Off Current	V _{CE} = 50V I _B = 0			3	
I _{EBO}	Emitter Cut-Off Current	V _{EB} = 5V I _C = 0			5	
h _{FE} ⁽¹⁾	Forward-current transfer ratio	I _C = 10A V _{CE} = 3V	1000			
V _{BE(on)} ⁽¹⁾	Base-Emitter Voltage	I _C = 10A V _{CE} = 3V			3	V
V _{CE(sat)} ⁽¹⁾	Collector-Emitter Saturation Voltage	I _C = 10A I _B = 40mA			2.5	
		I _C = 16A I _B = 80mA			4.0	

Notes

(1) Pulse Width ≤ 300us, δ ≤ 2%

MECHANICAL DATA

Dimensions in mm (inches)



TO3 (TO-204AA) METAL PACKAGE Underside View

Pin 1 - Base

Pin 2 - Emitter

Case - Collector