

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	$^\circ\text{C/W}$

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

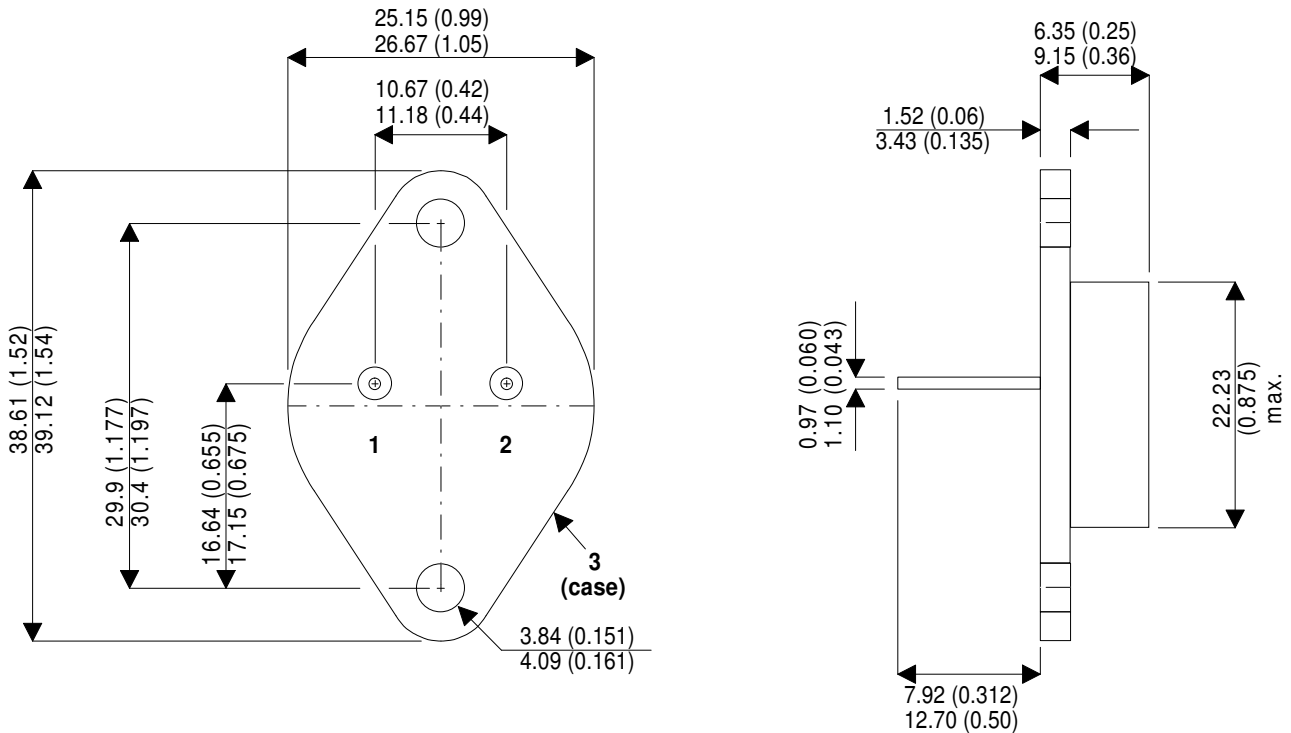
Symbols	Parameters	Test Conditions	Min.	Typ	Max.	Units
V _{(BR)CEO} ⁽¹⁾	Collector-Emitter Breakdown Voltage	I _C = 100mA	100			V
I _{CER}	Collector Cut-Off Current	V _{CE} = 100V R _{BE} = 1.0KΩ T _C = 150°C			1.0 5	mA
I _{CEO}	Collector Cut-Off Current	V _{CE} = 50V I _B = 0			3	
I _{EBO}	Emitter Cut-Off 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