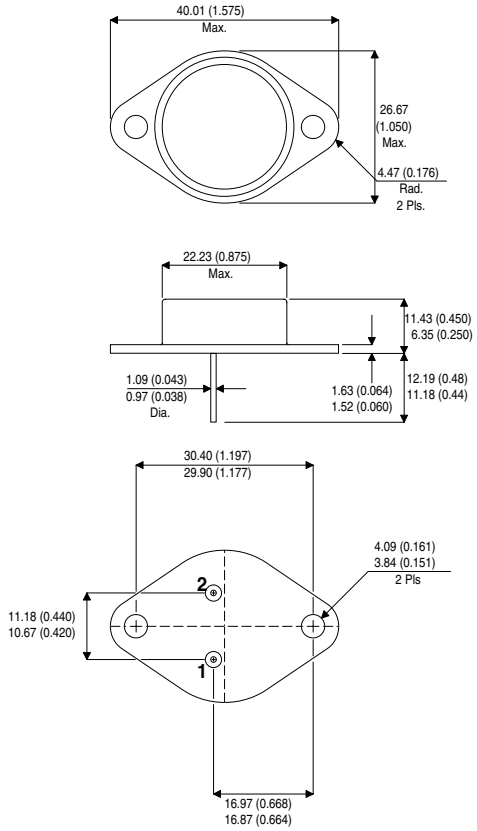
2N3716X

MECHANICAL DATA

Dimensions in mm (inches)



TO3

Underside View

PIN 1 – Base PIN 2 – Emitter Case – Collector

NPN SILICON EPIBASE TRANSISTOR

FEATURES

- **SILICON EPIBASE NPN TRANSISTOR**
- **CECC SCREENING OPTIONS**
- **LOW FREQUENCY**

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage	100V
V_{CEO}	Collector – Emitter Voltage (I_B = 0)	80V
V_{EBO}	Emitter – Base Voltage (I_B = 0)	7.V
I_C	Collector Current	10A
I_B	Base Current	4A
P_{tot}	Maximum Total Power Dissipation @ T_C = 25°C	150W
	Derate above 25°C	6.86mW / °C
T_J , T_{STG}	Operating and Storage Junction Temperature Range	–65 to +200°C
$R_{\theta JCase}$	Thermal Resistance Junction to Case	1.94°C/mW

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	I_C = 5A	I_B = 0.5A			0.8	V
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	I_C = 5A	I_E = 0.5A			1.5	
V_{BE}	Base – Emitter Voltage	V_{CE} = 2V	I_C = 3A			1.5	
h_{21E}	Static Value of Common-Emmitter forward current trasfer ratio*+	V_{CE} = 2V	I_C = 1A	50		180	—
		V_{CE} = 2V	I_C = 3A	30			
I_{CEX}	Collector – Emitter Cut-off Current*+	V_{CE} = 100V	V_{EB} = 1.5V			1.0	mA
		V_{CE} = 100V	V_{EB} = 1.5V T_{CASE} = 150°C			10	
fT	Transistion Frequency*+	V_{CE} = 10V f = 1MHz	V_{EB} = 0.5A	4.0			MHz

* Pulse Length = 300µs,duty cycle 1.5%.
+ Parameters which are verified in Groups A & C

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