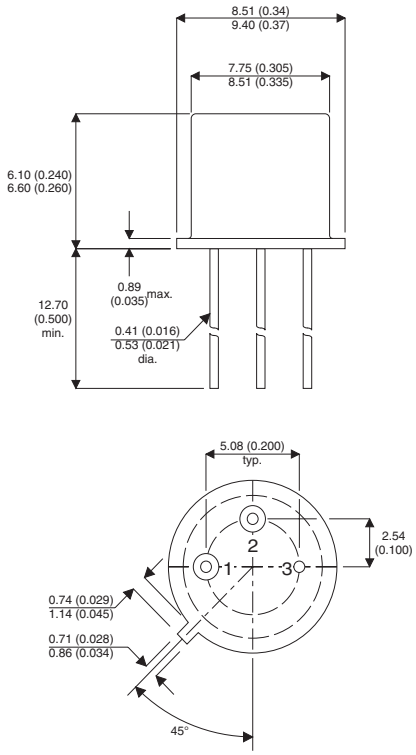
2N696

MECHANICAL DATA
Dimensions in mm (inches)



TO–39(TO205AD) METAL PACKAGE
Underside View

PIN 1 – Emitter PIN 2 – Base PIN 3 – Collector

NPN SILICON TRANSISTOR

FEATURES
- SILICON PLANAR EPITAXIAL NPN TRANSISTOR
- SCREENING OPTIONS AVAILABLE

APPLICATIONS:
- General Purpose Amplifier
- Switching Circuits

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

V_{CBO}	Collector – Base Voltage	60V
V_{CER}	Collector – Emitter Voltage (I_B = 0)	40V
V_{EBO}	Emitter – Base Voltage (I_B = 0)	5V
P_D	Total Device Dissipation @ T_A = 25°C	0.6W
P_D	Total Device Dissipation @ T_C = 25°C	2.0W
T_J , T_{STG}	Operating and Storage Junction Temperature Range	–65 to +200°C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	292°C/W
$R_{\theta JC}$	Thermal Resistance Junction to Case	87.5°C/W

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SEME LAB

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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
$V_{CBO(BR)}$*	Collector - Base Breakdown Voltage	I_C = 100µA	I_B = 0A	60			V
$V_{CER(BR)}$*	Collector - Emitter Breakdown Voltage	I_C = 100mA	R_{BE} = 10Ω	40			V
$V_{EBO(BR)}$*	Emitter - Base Breakdown Voltage	I_E = 100µA	I_C = 0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 30V	V_{BE} = 0V			1.0	µA
			T_C = 150°C			100	
$V_{CE(sat)}$*	Collector – Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA			1.5	V
$V_{BE(sat)}$*	Base – Emitter Saturation Voltage	I_C = 150mA	I_B = 15mA			1.3	V
h_{FE}	DC Current Gain	V_{CE} = 10V	I_C = 150mA	20		60	-
C_{ob}	Output Capacitance	V_{CB} = 10V f= 1.0 MHz	I_E = 0			35	pF
f_T	Current Gain Bandwidth Product	V_{CB} = 10V f= 20 MHz	I_C = 50mA	40			MHz

(*) Pulse test: $t_p \leq 300\mu s$, $\delta \leq 1.5\%$

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