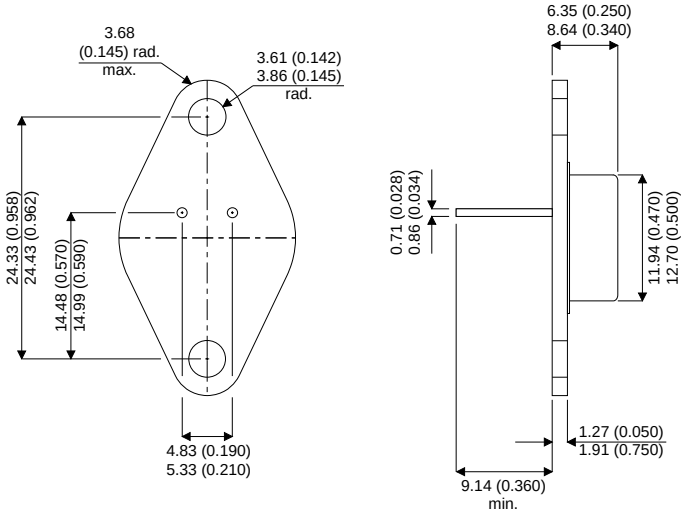
2N6261

MECHANICAL DATA
Dimensions in mm(inches)



TO–66

PIN 1 — Base PIN 2 — Emitter Case is Collector.

HOMETAXIAL-BASE MEDIUM POWER SILICON NPN TRANSISTOR

FEATURES

- **f_T = 800 kHz at 0.2A**
- **Maximum Safe-area of operation curves for dc and pulse operation.**
- **$V_{CEV(sus)}$ = 90V min**
- **Low Saturation Voltage: $V_{CE(sat}$ = 1.0V at I_C = 0.5A)**

APPLICATIONS

- **Power Switching Circuits**
- **Series and shunt-regulator driver and output stages**
- **High-fidelity amplifers**
- **Solenoid Drivers**

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

V_{CBO}	Collector – Base Voltage	90V
V_{CEO}	Collector – Emitter Voltage (with base open)	80V
$V_{CER(sus)}$	External Base – Emitter (R_{BE}) = 100Ω)	85V
$V_{CEV(sus)}$	Collector – Emitter Voltage (with base reverse biased)	90V
V_{EBO}	Emitter to Base Voltage	7V
I_C	Continuous Collector Current	4A
I_B	Continuous Base Current	2A
P_D	Total Power Dissipation at T_{case} = 25°C	50W
	Derate above 25°C	0.200°C
T_j, T_{stg},	Operating and Storage Junction Temperature Range	–65 to 200°C

In accordance with JEDEC registration data format

THERMAL CHARACTERISTICS

RθJC	Thermal Resistance, Junction to Case	3.5 °C/W

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
I_{CEO}	Collector Cut-off Current with base open	V_{CE} = 60V	I_B = 0			0.5	mA
I_{CEV}	Collector – Cut-off Current	V_{CE} = 80V	V_{BE} = -1.5V			0.5	mA
			T_c = 150°C			1.0	mA
I_{EBO}	Emitter Cut-off Current	V_{BE} = -7V	I_B = 0			0.2	mA
$V_{CEO(sus)}$	Collector – Emitter Sustaining Voltage with base open*	I_C = 0.1A	I_B = 0	80			V
$V_{CER(sus)}$	External Base to Emitter Resistance	V_{BE} = 5V	(R_{BE}) = 100Ω	85			V
h_{FE}	D.C Forward Current*	V_{CE} = 2V	I_C = 4A	5			—
		V_{CE} = 2V	I_C = 1.5A	25	100		—
$V_{CE(sat)}$	Collector to Emitter Saturation Voltage*	I_C = 1.5A	I_B = .0.15A			0.5	V
V_{BE}	Base – Emitter Voltage	V_{CE} = 2V	I_C = 1.5			1.5	V
f_{hfe}	Common Emitter Small Signal Short Circuit, Forward Current Transfer Ratio Cut off Frequency	V_{CE} = 4V	I_C = 0.1	0.03			MHz

*Pulse test tp =300μs $\delta \leq 1.8\%$