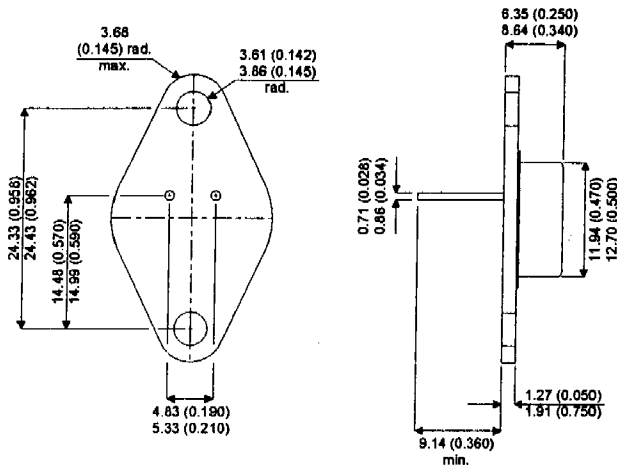


**2N6261**

**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.
- $V_{CE(sus)} = 90V$  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 amplifiers
- Solenoid Drivers

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^\circ C$  unless otherwise stated)

$V_{CBO}$	Collector - Base Voltage	90V
$V_{CEO}$	Collector - Emitter Voltage (with base open)	80V
$V_{CER(sus)}$	External Base - Emitter ( $R_{BE} = 100\Omega$ )	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 $T_{case} = 25^\circ C$ Derate above $25^\circ C$	50W 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**

$R_{\theta JC}$	Thermal Resistance, Junction to Case	3.5 °C/W
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NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

# 2N6261

## ELECTRICAL CHARACTERISTICS ( $T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{\text{CEO}}$	Collector Cut-off Current with base open	$V_{\text{CE}} = 60\text{V}$	$I_{\text{B}} = 0$	0.5	
$I_{\text{CEV}}$	Collector – Cut-off Current	$V_{\text{CE}} = 80\text{V}$	$V_{\text{BE}} = -1.5\text{V}$ $T_{\text{c}} = 150^{\circ}\text{C}$	0.5 1.0	mA
$I_{\text{EBO}}$	Emitter Cut-off Current	$V_{\text{BE}} = -7\text{V}$	$I_{\text{B}} = 0$	0.2	
$V_{\text{CEO(sus)}}$	Collector – Emitter Sustaining Voltage with base open*	$I_{\text{C}} = 0.1\text{A}$	$I_{\text{B}} = 0$	80	V
$V_{\text{CER(sus)}}$	External Base to Emitter Resistance	$V_{\text{BE}} = 5\text{V}$	$(R_{\text{BE}}) = 100\Omega$	85	
$h_{\text{FE}}$	D.C Forward Current*	$V_{\text{CE}} = 2\text{V}$ $V_{\text{CE}} = 2\text{V}$	$I_{\text{C}} = 4\text{A}$ $I_{\text{C}} = 1.5\text{A}$	5 25	100 —
$V_{\text{CE(sat)}}$	Collector to Emitter Saturation Voltage*	$I_{\text{C}} = 1.5\text{A}$	$I_{\text{B}} = .015\text{A}$	0.5	V
$V_{\text{BE}}$	Base – Emitter Voltage	$V_{\text{CE}} = 2\text{V}$	$I_{\text{C}} = 1.5$	1.5	
$f_{\text{hfe}}$	Common Emitter Small Signal Short Circuit, Forward Current Transfer Ratio Cut off Frequency	$V_{\text{CE}} = 4\text{V}$	$I_{\text{C}} = 0.1$	0.03	MHz

\*Pulse test  $t_{\text{p}} = 300\mu\text{s}$   $\delta \leq 1.8\%$