

## Description

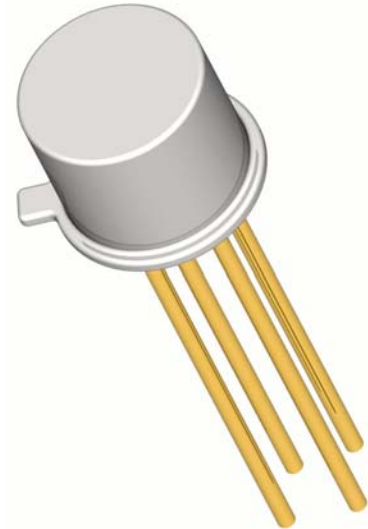
SEMICOA Corporation offers:

- Screening and processing per MIL-PRF-19500 Appendix E
- JAN level (2N4261J)
- JANTX level (2N4261JX)
- JANTXV level (2N4261JV)
- JANS level (2N4261JS)
- QCI to the applicable level
- 100% die visual inspection per MIL-STD-750 method 2072 for JANTXV and JANS
- Radiation testing (total dose) upon request

Please contact SEMICOA for special configurations  
[www.SEMICOA.com](http://www.SEMICOA.com) or (714) 979-1900

## Applications

- General purpose switching transistor
- Low power
- PNP silicon transistor



## Features

- Hermetically sealed TO-72 metal can
- Also available in chip configuration
- Chip geometry 0014
- Reference document: MIL-PRF-19500/511

## Benefits

- Qualification Levels: JAN, JANTX, JANTXV and JANS
- Radiation testing available

Absolute Maximum Ratings		$T_C = 25^\circ\text{C}$ unless otherwise specified	
Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	$V_{CEO}$	15	Volts
Collector-Base Voltage	$V_{CBO}$	15	Volts
Emitter-Base Voltage	$V_{EBO}$	4.5	Volts
Collector Current, Continuous	$I_C$	30	mA
Power Dissipation, $T_A = 25^\circ\text{C}$ Derate linearly above $25^\circ\text{C}$	$P_T$	200 1.14	mW mW/ $^\circ\text{C}$
Thermal Resistance	$R_{\theta JA}$	0.86	$^\circ\text{C}/\text{mW}$
Operating Junction Temperature Storage Temperature	$T_J$ $T_{STG}$	-65 to +200	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS

characteristics specified at  $T_A = 25^\circ\text{C}$

### Off Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10\text{ mA}$	15			Volts
Collector-Base Cutoff Current	$I_{CBO}$	$V_{CB} = 15\text{ Volts}$			10	$\mu\text{A}$
Collector-Emitter Cutoff Current	$I_{CEX1}$	$V_{CE} = 10\text{ Volts}, V_{BE} = 0.4\text{ Volts}$			50	nA
	$I_{CEX2}$	$V_{CE} = 10\text{ Volts}, V_{BE} = 2\text{ Volts}$			5	nA
	$I_{CEX3}$	$V_{CE} = 10\text{ Volts}, V_{BE} = 2\text{ Volts}, T_A = 150^\circ\text{C}$			5	$\mu\text{A}$
Emitter-Base Cutoff Current	$I_{EBX}$	$V_{BE} = 2\text{ Volts}, V_{CE} = 10\text{ Volts}$			5	nA
Emitter-Base Cutoff Current	$I_{EBO}$	$V_{EB} = 4.5\text{ Volts}$			10	$\mu\text{A}$

### On Characteristics

Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
DC Current Gain	$h_{FE1}$	$I_C = 1\text{ mA}, V_{CE} = 1\text{ Volts}$	25			
	$h_{FE2}$	$I_C = 10\text{ mA}, V_{CE} = 1\text{ Volts}$	30		150	
	$h_{FE3}$	$I_C = 30\text{ mA}, V_{CE} = 1\text{ Volts}$	20			
	$h_{FE4}$	$I_C = 10\text{ mA}, V_{CE} = 1\text{ Volts}, T_A = -55^\circ\text{C}$	15			
Base-Emitter Voltage	$V_{BE1}$	$V_{CE} = 1\text{ Volts}, I_C = 1\text{ mA}$			0.8	Volts
	$V_{BE2}$	$V_{CE} = 1\text{ Volts}, I_C = 10\text{ mA}$			1.0	
Collector-Emitter Saturation Voltage	$V_{CEsat1}$	$I_C = 1\text{ mA}, I_B = 0.1\text{ mA}$			0.15	Volts
	$V_{CEsat2}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$			0.35	

### Dynamic Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Magnitude – Common Emitter, Short Circuit Forward Current Transfer Ratio	$ h_{FE1} $	$f = 100\text{ MHz}$ $V_{CE} = 4\text{ Volts}, I_C = 5\text{ mA}$	15			
	$ h_{FE2} $	$V_{CE} = 10\text{ Volts}, I_C = 10\text{ mA}$	20			
Open Circuit Output Capacitance	$C_{OBO}$	$V_{CB} = 4\text{ Volts}, I_E = 0\text{ mA}, 100\text{ kHz} < f < 1\text{ MHz}$			2.5	pF
Open Circuit Input Capacitance	$C_{IBO}$	$V_{EB} = 0.5\text{ Volts}, I_C = 0\text{ mA}, 100\text{ kHz} < f < 1\text{ MHz}$			2.5	pF
Collector Base time constant	$r_b' C_{C1}$	$V_{CE} = 4\text{ Volts}, f = 31.8\text{ MHz}$ $I_C = 5\text{ mA}$			60	ps
	$r_b' C_{C2}$	$I_C = 10\text{ mA}$			50	

### Switching Characteristics

Saturated Turn-On Time	$t_{ON}$	$V_{CC} = 17\text{ Volts}, I_C = 10\text{ mA}$			2.5	ns
Saturated Turn-Off Time	$t_{OFF}$	$V_{CC} = 17\text{ Volts}, I_C = 10\text{ mA}$			3.5	ns