2N4261

Silicon PNP Transistor

Data Sheet

Description

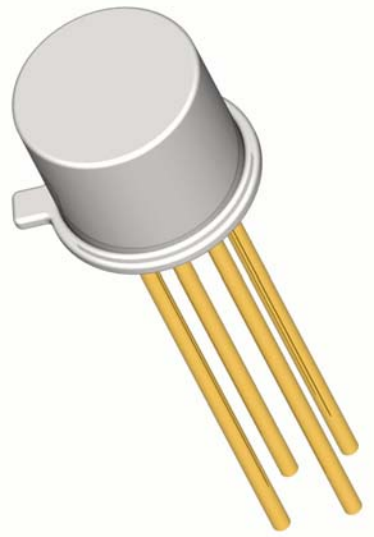
SEMICOA Corporation offers:

- 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 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°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°C Derate linearly above 25°C	P_T	200 1.14	mW mW/°C
Thermal Resistance	$R_{\theta JA}$	0.86	°C/mW
Operating Junction Temperature Storage Temperature	T_J T_{STG}	-65 to +200	°C

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ELECTRICAL CHARACTERISTICS

characteristics specified at T_A = 25°C

Off Characteristics

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

On Characteristics

Pulse Test: Pulse Width = 300 µs, Duty Cycle ≤ 2.0%

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

Dynamic Characteristics

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

Switching Characteristics

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

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