SEMICOA SEMICONDUCTORS

Data Sheet No. 2N4261

Type 2N4261
Geometry 0014
Polarity PNP
Qual Level: JAN - JANS

Generic Part Number: 2N4261

REF: MIL-PRF-19500/511

Features:

Request Quotation

- Fast switching small signal silicon transistor.
- Housed in a TO-72 case.
- Also available in chip form using the 0014 chip geometry.
- The Min and Max limits shown are per MIL-PRF-19500/511 which Semicoa meets in all cases.
- Radiation graphs available.

TO-72

Maximum Ratings

T_C = 25°C unless otherwise specified

Rating	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	15	V
Collector-Base Voltage	V_{CBO}	15	V
Emitter-Base Voltage	V_{EBO}	4.5	V
Collector Current, Continuous	I_C	30	mA
Operating Junction Temperature	T_J	-65 to +200	°C
Storage Temperature	T_{STG}	-65 to +200	°C

Electrical Characteristics

T_C = 25°C unless otherwise specified

OFF Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage I_C = 10 µA	$V_{(BR)CBO}$	15	---	V
Collector-Emitter Breakdown Voltage I_C = 10 mA	$V_{(BR)CEO}$	15	---	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	4.5	---	V
Collector-Emitter Cutoff Current V_{CE} = 10 V, V_{EB} = 0.4 V V_{CE} = 10 V, V_{EB} = 2.0 V V_{CE} = 10 V, V_{EB} = 2.0 V, T_A = +150°C	 I_{CEX1} I_{CEX2} I_{CEX3}	 --- --- ---	 50 5.0 5.0	 nA nA µA
Base Cutoff Current V_{CE} = 10 V, V_{EB} = 2.0 V	I_{BEX}	---	5.0	nA
Emitter-Base Cutoff Current V_{EB} = 4.5 V	I_{EBO}	---	10	µA

ON Characteristics	Symbol	Min	Max	Unit
Forward current Transfer Ratio				
I_C = 1.0 mA, V_{CE} = 1.0 V	h_{FE1}	25	---	---
I_C = 10 mA, V_{CE} = 1.0 V, pulsed	h_{FE2}	30	150	---
I_C = 30 mA, V_{CE} = 1.0 V pulsed	h_{FE3}	20	---	---
I_C = 10 mA, V_{CE} = 1.0 V, T_A = -55°C	h_{FE4}	15	---	---
Collector-Emitter Saturation Voltage				
I_C = 1.0 mA, I_B = 0.1 mA	$V_{CE(sat)1}$	---	0.15	V dc
I_C = 10 mA, I_B = 1.0 mA	$V_{CE(sat)2}$	---	0.35	V dc
Base-Emitter Saturation Voltage				
V_{CE} = 1.0 V, I_C = 1.0 mA	V_{BE1}	---	0.8	V dc
V_{CE} = 1.0 V, I_C = 10 mA	V_{BE2}	---	1.0	V dc

Small Signal Characteristics	Symbol	Min	Max	Unit
Magnitude of Common Emitter Small Signal Short Circuit Forward Current Transfer Ratio				
V_{CE} = 4.0 V, I_C = 5.0 mA, f = 100 MHz	$\|h_{fe1}\|$	15	---	---
V_{CE} = 10 V, I_C = 10 mA, f = 100 MHz	$\|h_{fe2}\|$	20	---	---
Open Circuit Output Capacitance V_{CB} = 4.0 V, I_E = 0, 100 kHz < f < 1 MHz	C_{OBO}	---	2.5	pF
Input Capacitance, Output Open Circuited V_{EB} = 0.5 V, I_C = 0, 100 kHz < f < 1 MHz	C_{IBO}	---	2.5	pF

Switching Characteristics	Symbol	Min	Max	Unit
Collector-Base Time Constant V_{CE} = 4.0 V, I_C = 5.0 mA, f = 31.8 MHz	$r'b'C_{C1}$	---	60	ps
Collector-Base Time Constant V_{CE} = 4.0 V, I_C = 10 mA, f = 31.8 MHz	$r'b'C_{C2}$	---	50	ps
Saturated Turn On Switching Time to 90% V_{CC} = 17 V, 50 ohm pulse generator	t_{ON}	---	2.5	ns
Saturated Turn Off Switching Time to 10% V_{CC} = 17 V, 50 ohm pulse generator	t_{OFF}	---	3.5	ns