2N3810

Silicon PNP Transistor

Data Sheet

Description

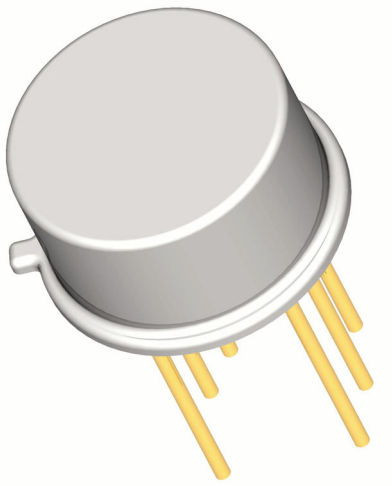
Semicoa Semiconductors offers:

- Screening and processing per MIL-PRF-19500 Appendix E
- JAN level (2N3810J)
- JANTX level (2N3810JX)
- JANTXV level (2N3810JV)
- JANS level (2N3810JS)
- 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
- Matched Dual transistors
- PNP silicon transistor



Features

- Hermetically sealed TO-78 metal can
- Also available in chip configuration
- Chip geometry 0220
- Reference document: MIL-PRF-19500/336

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}	60	Volts
Collector-Base Voltage	V_{CBO}	60	Volts
Emitter-Base Voltage	V_{EBO}	5	Volts
Collector Current, Continuous	I_C	50	mA
Power Dissipation, T_A = 25°C Derate linearly above 25°C	P_T	300 one section 600 both sections 1.71one section 3.43 both sections	mW mW/°C
Operating Junction Temperature	T_J	-65 to +200	°C
Storage Temperature	T_{STG}	-65 to +200	°C

Rev. G

Semicoa Semiconductors, Inc.
333 McCormick Avenue, Costa Mesa, California 92626 714.979.1900, FAX 714.557.4541
www.*SEMICOA*.com

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 = 100 µA	60			Volts
Collector-Base Cutoff Current	I_{CBO1} I_{CBO2} I_{CBO3}	V_{CB} = 60 Volts V_{CB} = 50 Volts V_{CB} = 50 Volts, T_A = 150°C			10 10 10	µA nA µA
Emitter-Base Cutoff Current	I_{EBO1} I_{EBO2}	V_{EB} = 5 Volts V_{EB} = 4 Volts			10 10	µA nA

On Characteristics

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
DC Current Gain	h_{FE2} h_{FE3} h_{FE4} h_{FE5} h_{FE6} h_{FE3-1}/h_{FE3-2}	I_C = 10 µA, V_{CE} = 5 Volts I_C = 100 µA, V_{CE} = 5 Volts I_C = 1 mA, V_{CE} = 5 Volts I_C = 10 mA, V_{CE} = 5 Volts I_C = 100 µA, V_{CE} = 5 Volts T_A = -55°C I_C = 100 µA, V_{CE} = 5 Volts	100 150 150 125 60 0.9		 450 450 1.0	
Base-Emitter Voltage	V_{BE} $\|V_{BE1}-V_{BE2}\|_1$ $\|V_{BE1}-V_{BE2}\|_2$ $\|V_{BE1}-V_{BE2}\|_3$	V_{CE} = 5 Volts, I_C = 100 µA V_{CE} = 5 Volts, I_C = 10 µA V_{CE} = 5 Volts, I_C = 100 µA V_{CE} = 5 Volts, I_C = 10 mA			0.7 5 3 5	Volts mVolts mVolts mVolts
Base-Emitter Saturation Voltage	V_{BEsat1} V_{BEsat2}	I_C = 100 µA, I_B = 10 µA I_C = 1 mA, I_B = 100 µA			0.7 0.8	Volts
Collector-Emitter Saturation Voltage	V_{CEsat1} V_{CEsat2}	I_C = 100 µA, I_B = 10 µA I_C = 1 mA, I_B = 100 µA			0.20 0.25	Volts

Semicoa Semiconductors, Inc.
333 McCormick Avenue, Costa Mesa, California 92626 714.979.1900, FAX 714.557.4541
www.*SEMICOA*.com

Dynamic Characteristics

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Magnitude – Common Emitter, Short Circuit Forward Current Transfer Ratio	$\|h_{FE1}\|$ $\|h_{FE2}\|$	V_{CE} = 5 Volts, I_C = 500 µA, f = 30 MHz V_{CE} = 5 Volts, I_C = 1 mA, f = 100 MHz	1 1		 5	
Small Signal Short Circuit Forward Current Transfer Ratio	h_{FE}	V_{CE} = 10 Volts, I_C = 1 mA, f = 1 kHz	150		600	
Open Circuit Output Capacitance	C_{OBO}	V_{CB} = 5 Volts, I_E = 0 mA, 100 kHZ < f < 1 MHz			5	pF
Open Circuit Input Capacitance	C_{IBO}	V_{EB} = 0.5 Volts, I_C = 0 mA, 100 kHZ < f < 1 MHz			8	pF
Noise Figure	NF_1 NF_2 NF_3	V_{CE} = 10 Volts, I_C = 100 µA, R_g = 3 kΩ f = 100 Hz f = 1 kHz f = 10 kHz			7 3 2.5	dB
Noise Figure (wideband)	NF	V_{CE} = 10 Volts, I_C = 100 µA, R_g = 3 kΩ 10 Hz < f < 15.7 kHz			3.5	dB
Short Circuit Input Impedance	h_{ie}	V_{CB} =10V, I_C =1mA, f =1kHz	3		30	kΩ
Open Circuit Output Admittance	h_{oe}	V_{CB} =10V, I_C =1mA, f =1kHz	5		60	µΩ
Open Circuit reverse Voltage Transfer Ratio	h_{re}	V_{CB} =10V, I_C=100µA, f=1kHz			$25x10^{-4}$	

Semicoa Semiconductors, Inc.
333 McCormick Avenue, Costa Mesa, California 92626 714.979.1900, FAX 714.557.4541
www.*SEMICOA*.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for semicoa ***manufacturer:***

Other Similar products are found below :

JANS2N2907AUA JANTXV2N2907AUB JANTXV2N4033UB GRP-DATA-JANS2N2222A GRP-DATA-JANS2N3700 GRP-DATA-JANS2N3866A JANTXV2N6193 GRP-DATA-JANS2N2907AUB JANTX2N4150 JANTX2N5237 2N4033JANTX 2N2907AJAN JANTX2N3737 JANTX2N3637 2N3019JVJANTXV JANTX2N2222AUB JANTX2N2907AUA 2N3501JANTX 2N6193JANTXV 2N3737JANTX 2N3637JANTX JANS2N2369A JANS2N4033UB 2N3501JAN JANSR2N6990 2N3811JANTX 2N2222AUAJANTX JANS2N2222AUB JANS2N3501UB 2N2369AUBJANTX JANTX2N4261 2N3486AJANTX 2N3507JANTX 2N2857JANTX 2N3499JANTX 2N2219AJANTX JANTX2N4029 2N2906AJAN JANTX2N6193 2N3637UBJANTXV 2N2907AUAJANTXV 2N3810JANTX 2N2484JANTX JANTX2N2222AUA 2N3019JANTX 2N6193JANTX 2N2905AJANTX 2N3700UBJANTXV JANTXV2N2907A 2N3700JANTX