SEMICOA SEMICONDUCTORS

Data Sheet No. 2N3468

Type 2N3468
Geometry 6706
Polarity PNP
Qual Level: JAN - JANTXV

Generic Part Number: 2N3468

REF: MIL-PRF-19500/348

Features:

Request Quotation

- General-purpose transistor for switching and amplifier applica-tons.
- Housed in a TO-39 case.
- Also available in chip form using the 6706 chip geometry.
- The Min and Max limits shown are per MIL-PRF-19500/348 which Semicoa meets in all cases.

TO-39

Maximum Ratings

T_C = 25°C unless otherwise specified

Rating	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	50	V
Collector-Base Voltage	V_{CBO}	50	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current, Continuous	I_C	1.0	mA
Operating Junction Temperature	T_J	-55 to +175	°C
Storage Temperature	T_{STG}	-55 to +175	°C

Electrical Characteristics

T_C = 25°C unless otherwise specified

OFF Characteristics	Symbol	Min	Max	Unit
Collector-Base Breakdown Voltage I_C = 10 µA	$V_{(BR)CBO}$	50	---	V
Collector-Emitter Breakdown Voltage I_C = 10 mA	$V_{(BR)CEO}$	50	---	V
Emitter-Base Breakdown Voltage I_E = 10 µA, pulsed	$V_{(BR)EBO}$	5.0	---	V
Collector-Base Cutoff Current V_{CB} = 30 V V_{CB} = 30 V, T_A = +150°C	 I_{CBO1} I_{CBO2}	 --- ---	 100 50	 nA µA
Collector-Emitter Cutoff Current V_{EB} = 3.0 V, V_{CE} = 30 V	I_{CEX}	---	100	nA

ON Characteristics	Symbol	Min	Max	Unit
Forward current Transfer Ratio				
I_C = 150 mA, V_{CE} = 1.0 V (pulse test)	h_{FE1}	25	---	---
I_C = 500 mA, V_{CE} = 1.0 V (pulse test)	h_{FE2}	25	75	---
I_C = 1.0 A, V_{CE} = 5 V (pulse test)	h_{FE3}	25	---	---
I_C = 150 mA, V_{CE} = 1.0 V (pulse test), T = -55°C	h_{FE4}	10	---	---
Collector-Emitter Saturation Voltage				
I_C = 150 mA, I_B = 15 mA (pulse test)	$V_{CE(sat)1}$	---	0.35	V dc
I_C = 500 mA, I_B = 50 mA (pulse test)	$V_{CE(sat)2}$	---	0.6	V dc
I_C = 1.0 A, I_B = 100 mA (pulse test)	$V_{CE(sat)3}$	---	1.2	V dc
Base-Emitter Saturation Voltage				
I_C = 150 mA, I_B = 15 mA (pulse test)	$V_{BE(sat)1}$	---	1.0	V dc
I_C = 500 mA, I_B = 50 mA (pulse test)	$V_{BE(sat)2}$	0.8	1.2	V dc
I_C = 1.0 A, I_B = 100 mA (pulse test)	$V_{BE(sat)3}$	---	1.6	V dc

Small Signal Characteristics	Symbol	Min	Max	Unit
Extrapolated Unity Gain Frequency V_{CE} = 10 V, I_C = 50 mA, f = 100 MHz	f_t	150	500	MHz
Open Circuit Output Capacitance V_{CB} = 10 V, I_E = 0, 100 kHz < f < 1 MHz	C_{OBO}	---	25	pF
Input Capacitance, Output Open Circuited V_{EB} = 0.5 V, I_C = 0, 100 kHz < f < 1 MHz	C_{IBO}	---	100	pF

Switching Characteristics	Symbol	Min	Max	Unit
Delay Time I_C = 500 mA, I_{B1} = 50 mA, V_{EB} = 2 V	t_d	---	10	ns
Rise Time I_C = 500 mA, I_{B1} = 50 mA, V_{EB} = 2 V	t_r	---	30	ns
Storage Time I_C = 500 mA, I_{B1} = I_{B2} = 50 mA	t_s	---	60	ns
Fall Time I_C = 500 mA, I_{B1} = I_{B2} = 50 mA	t_f	---	30	ns