



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## NPN SILICON LOW POWER TRANSISTOR

Qualified per MIL-PRF-19500/376

### DEVICES

**2N2484UA**  
**2N2484UB**  
**2N2484UBC \***

\* Available to JANS quality level only.

### LEVELS

**JAN**  
**JANTX**  
**JANTXV**  
**JANS**

### ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	60	Vdc
Collector-Base Voltage	$V_{CBO}$	60	Vdc
Emitter-Base Voltage	$V_{EBO}$	6.0	Vdc
Collector Current	$I_C$	50	mAdc
Total Power Dissipation @ $T_A = +25^\circ\text{C}$ <sup>(1)</sup>	$P_T$	360	mW
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +200	$^\circ\text{C}$

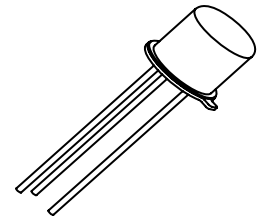
### THERMAL CHARACTERISTICS

Parameters / Test Conditions	Symbol	Value	Unit
Thermal Resistance, Ambient-to-Case	$R_{\theta JA}$		$^\circ\text{C/W}$
2N2484		325	
2N2484UA		275	
2N2484UB, UBC		350	

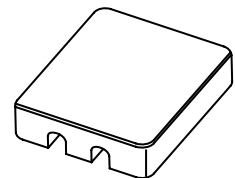
1. See 19500/376 for Thermal Performance Curves.

### ELECTRICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ , unless otherwise noted)

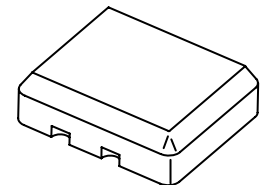
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
<b>OFF CHARACTERISTICS</b>				
Collector-Emitter Breakdown Voltage $I_C = 10\text{mAdc}$	$V_{(BR)CEO}$	60		Vdc
Collector-Emitter Cutoff Current $V_{CE} = 45\text{Vdc}$	$I_{CES}$		5.0	$\eta\text{Adc}$
Collector-Base Cutoff Current $V_{CB} = 45\text{Vdc}$ $V_{CB} = 60\text{Vdc}$	$I_{CBO}$		5.0 10	$\eta\text{Adc}$ $\mu\text{Adc}$
Collector-Emitter Cutoff Current $V_{CE} = 5.0\text{Vdc}$	$I_{CEO}$		2.0	$\eta\text{Adc}$



**TO-18 (TO-206AA)**  
**2N2484**



**2N2484UA**



**2N2484UB, UBC**  
**(UBC = Ceramic Lid Version)**

## NPN SILICON LOW POWER TRANSISTOR

Qualified per MIL-PRF-19500/376

### ELECTRICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ , unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
<b>OFF CHARACTERISTICS</b>				
Emitter-Base Cutoff Current $V_{EB} = 5.0\text{Vdc}$ $V_{EB} = 6.0\text{Vdc}$	$I_{EBO}$		2.0 10	$\eta\text{Adc}$ $\mu\text{Adc}$
<b>ON CHARACTERISTICS <sup>(2)</sup></b>				
Forward-Current Transfer Ratio $I_C = 1.0\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ $I_C = 10\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ $I_C = 100\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ $I_C = 500\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ $I_C = 1.0\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$ $I_C = 10\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$	$h_{FE}$	45 200 225 250 250 225	500 675 800 800	
Collector-Emitter Saturation Voltage $I_C = 1.0\text{mA}$ , $I_B = 100\mu\text{A}$	$V_{CE(sat)}$		0.3	Vdc
Base-Emitter Voltage $V_{CE} = 5.0\text{Vdc}$ , $I_C = 100\mu\text{A}$	$V_{BE(ON)}$	0.5	0.7	Vdc

### DYNAMIC CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Forward Current Transfer Ratio $I_C = 50\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 5.0\text{MHz}$ $I_C = 500\mu\text{A}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 30\text{MHz}$	$ h_{fe} $	3.0 2.0	0.7	
Open Circuit Output Admittance $I_C = 1.0\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 1.0\text{kHz}$	$h_{oe}$		40	$\mu\text{mhos}$
Open Circuit Reverse-Voltage Transfer Ratio $I_C = 1.0\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 1.0\text{kHz}$	$h_{re}$		$8.0 \times 10^{-4}$	
Input Impedance $I_C = 1.0\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 1.0\text{kHz}$	$h_{je}$	3.5	24	$k\Omega$
Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 1.0\text{mA}$ , $V_{CE} = 5.0\text{Vdc}$ , $f = 1.0\text{kHz}$	$h_{fe}$	250	900	
Output Capacitance $V_{CB} = 5.0\text{Vdc}$ , $I_E = 0$ , $100\text{kHz} \leq f \leq 1.0\text{MHz}$	$C_{obo}$		5.0	pF
Input Capacitance $V_{EB} = 0.5\text{Vdc}$ , $I_C = 0$ , $100\text{kHz} \leq f \leq 1.0\text{MHz}$	$C_{ibo}$		6.0	pF

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