



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

2N2484

Qualified Level

JANTX
JANTXV

MAXIMUM RATINGS

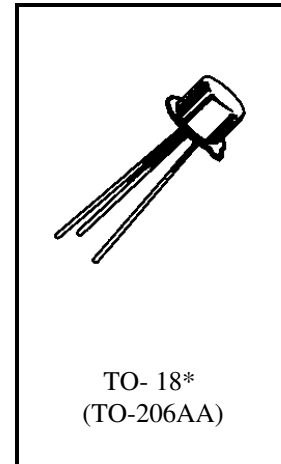
Ratings	Symbol	2N2484	Unit
Collector-Emitter Voltage	V_{CEO}	60	Vdc
Collector-Base Voltage	V_{CBO}	60	Vdc
Emitter-Base Voltage	V_{EBO}	6.0	Vdc
Collector Current	I_C	50	mAdc
Total Power Dissipation	P_T	@ $T_A = +25^{\circ}C^{(1)}$	360
		@ $T_C = +25^{\circ}C^{(2)}$	1.2
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200	$^{\circ}C$

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	146	$^{\circ}C/W$

1) Derate linearly 2.06 mW/ $^{\circ}C$ above $T_A = +25^{\circ}C$

2) Derate linearly 6.85 mW/ $^{\circ}C$ above $T_C = +25^{\circ}C$



*See appendix A for package outline

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

Characteristics	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Current $I_C = 10$ mAdc	$V_{(BR)CEO}$	60		Vdc
Collector-Emitter Cutoff Current $V_{CE} = 45$ Vdc	I_{CES}		5.0	η Adc
Collector-Base Cutoff Current $V_{CB} = 45$ Vdc $V_{CB} = 60$ Vdc	I_{CBO}		5.0	η Adc
			10	μ Adc
Collector-Emitter Cutoff Current $V_{CE} = 5.0$ Vdc	I_{CEO}		2.0	η Adc
Emitter-Base Cutoff Current $V_{EB} = 5.0$ Vdc $V_{EB} = 6.0$ Vdc	I_{EBO}		2.0	η Adc
			10	μ Adc

ELECTRICAL CHARACTERISTICS (con't)

Characteristics	Symbol	Min.	Max.	Unit
ON CHARACTERISTICS (3)				
Forward-Current Transfer Ratio $I_C = 1.0 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}$ $I_C = 10 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}$ $I_C = 100 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}$ $I_C = 500 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}$ $I_C = 1.0 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}$ $I_C = 10 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}$	h_{FE}	45 200 225 250 250 225	500 675 800 800	
Collector-Emitter Saturation Voltage $I_C = 1.0 \text{ mA dc}, I_B = 100 \mu\text{A dc}$	$V_{CE(sat)}$		0.3	Vdc
Base-Emitter Voltage $V_{CE} = 5.0 \text{ V dc}, I_C = 100 \mu\text{A dc}$	V_{BE}	0.5	0.7	Vdc

DYNAMIC CHARACTERISTICS

Forward Current Transfer Ratio $I_C = 50 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}, f = 5.0 \text{ MHz}$ $I_C = 500 \mu\text{A dc}, V_{CE} = 5.0 \text{ V dc}, f = 30 \text{ MHz}$	$ h_{fe} $	3.0 2.0	7.0	
Open Circuit Output Admittance $I_C = 1.0 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}, f = 1.0 \text{ kHz}$	h_{oe}		40	μmhos
Open Circuit Reverse-Voltage Transfer Ratio $I_C = 1.0 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}, f = 1.0 \text{ kHz}$	h_{re}		8.0×10^{-4}	
Input Impedance $I_C = 1.0 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}, f = 1.0 \text{ kHz}$	h_{ie}	3.5	24	$k\Omega$
Small-Signal Short-Circuit Forward Current Transfer Ratio $I_C = 1.0 \text{ mA dc}, V_{CE} = 5.0 \text{ V dc}, f = 1.0 \text{ kHz}$	h_{fe}	250	900	
Output Capacitance $V_{CB} = 5.0 \text{ V dc}, I_E = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{obo}		5.0	pF
Input Capacitance $V_{EB} = 0.5 \text{ V dc}, I_C = 0, 100 \text{ kHz} \leq f \leq 1.0 \text{ MHz}$	C_{ibo}		6.0	pF

(3) Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2.0\%$.