

# 2N3485A JAN, JTX, JTXV

# 2N3486A JAN, JTX, JTXV

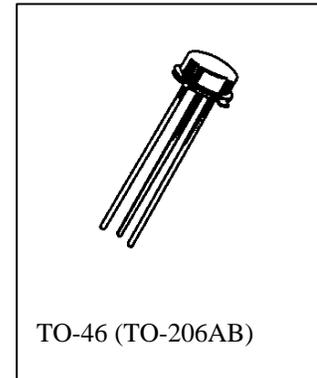


Processed per MIL-PRF-19500/392

## PNP SILICON SMALL-SIGNAL TRANSISTORS

### MAXIMUM RATINGS

Ratings	Symbol	2N3485A 2N3486A	Units
Collector-Emitter Voltage	$V_{CEO}$	60	Vdc
Collector-Base Voltage	$V_{CBO}$	60	Vdc
Emitter-Base Voltage	$V_{EBO}$	5.0	Vdc
Collector Current -- Continuous	$I_C$	600	mAdc
Total Power Dissipation @ $T_A = 25^{\circ}C^{(1)}$ @ $T_C = 25^{\circ}C^{(2)}$	$P_T$	0.4	W
		2.0	W
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-55 to +200	$^{\circ}C$



### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	0.439	$^{\circ}C/W$
Junction-to-Case	$R_{\theta JC}$	87	$^{\circ}C/W$

 1) Derate linearly 2.28 mW/ $^{\circ}C$  above  $T_A = +25^{\circ}C$ 

 2) Derate linearly 11.43 mW/ $^{\circ}C$  above  $T_C = +25^{\circ}C$ 

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

Characteristics	Symbol	Min.	Max.	Unit
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### OFF CHARACTERISTICS

Collector-Base Breakdown Voltage $I_C = 10 \mu Adc$	$V_{(BR)CBO}$	60		Vdc
Collector-Emitter Breakdown Voltage $I_C = 10 mAdc$	$V_{(BR)CEO}$	60		Vdc
Emitter-Base Breakdown Voltage $I_E = 10 \mu Adc$	$V_{(BR)EBO}$	5.0		Vdc
Collector-Base Cutoff Current $V_{CB} = 50 Vdc$	$I_{CBO}$		10	$\eta Adc$
Emitter-Base Cutoff Current $V_{EB} = 3.5 Vdc$	$I_{EBO}$		50	$\eta Adc$

2N3485A, 2N3486A JAN SERIES

**ELECTRICAL CHARACTERISTICS (con't)**

Characteristics	Symbol	Min.	Max.	Unit
<b>ON CHARACTERISTICS <sup>(3)</sup></b>				
Forward-Current Transfer Ratio I <sub>C</sub> = 0.1 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub>	h <sub>FE</sub>	40		
2N3485A		75		
2N3486A		40		
I <sub>C</sub> = 1.0 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub>		100		
2N3485A		40		
2N3486A		100		
I <sub>C</sub> = 10 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub>	40			
2N3485A	100			
2N3486A	40	120		
I <sub>C</sub> = 150 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub>	100	300		
2N3485A	40			
2N3486A	50			
Collector-Emitter Saturation Voltage I <sub>C</sub> = 150 mA <sub>dc</sub> , I <sub>B</sub> = 15 mA <sub>dc</sub> I <sub>C</sub> = 500 mA <sub>dc</sub> , I <sub>B</sub> = 50 mA <sub>dc</sub>	V <sub>CE(sat)</sub>		0.4 1.6	V <sub>dc</sub>
Base-Emitter Saturation Voltage I <sub>C</sub> = 150 mA <sub>dc</sub> , I <sub>B</sub> = 15 mA <sub>dc</sub> I <sub>C</sub> = 500 mA <sub>dc</sub> , I <sub>B</sub> = 50 mA <sub>dc</sub>	V <sub>BE(sat)</sub>		1.3 2.6	V <sub>dc</sub>
<b>DYNAMIC CHARACTERISTICS</b>				
Small-Signal Forward Current Transfer Ratio I <sub>C</sub> = 1.0 mA <sub>dc</sub> , V <sub>CE</sub> = 10 V <sub>dc</sub> , f = 1.0 kHz	h <sub>fe</sub>	40		
2N3485A		100		
2N3486A				
Magnitude of Small-Signal Forward Current Transfer Ratio I <sub>C</sub> = 50 mA <sub>dc</sub> , V <sub>CE</sub> = 20 V <sub>dc</sub> , f = 100 MHz	h <sub>fe</sub>	2.0	10	
Output Capacitance V <sub>CB</sub> = 10 V <sub>dc</sub> , I <sub>E</sub> = 0, 100 kHz ≤ f ≤ 1.0 MHz	C <sub>obo</sub>		8.0	pF
Input Capacitance V <sub>EB</sub> = 2.0 V <sub>dc</sub> , I <sub>C</sub> = 0, 100 kHz ≤ f ≤ 1.0 MHz	C <sub>ibo</sub>		30	pF

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