

2N3485A JAN, JTX, JTXV

2N3486A JAN, JTX, JTXV

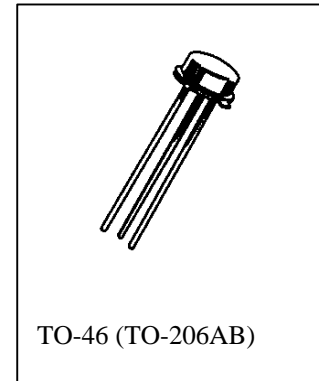


Processed per MIL-PRF-19500/392

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 @ $T_A = 25^{\circ}\text{C}^{(1)}$ @ $T_C = 25^{\circ}\text{C}^{(2)}$	P_T	0.4	W
		2.0	W
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-55 to +200	$^{\circ}\text{C}$



THERMAL CHARACTERISTICS

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

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

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

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

Characteristics	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

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

2N3485A, 2N3486A JAN SERIES

ELECTRICAL CHARACTERISTICS (con't)

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

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