6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: http: //www.microsemi.com

TECHNICAL DATA SHEET

NPN SILICON LOW POWER TRANSISTOR

Qualified per MIL-PRF-19500/376

DEVICES

2N2484UA
2N2484UB
2N2484UBC *

LEVELS

JAN
JANTX
JANTXV
JANS

*** Available to JANS quality level only.**

ABSOLUTE MAXIMUM RATINGS *(T_C = +25°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°C (1)	P_T	360	mW
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200	°C

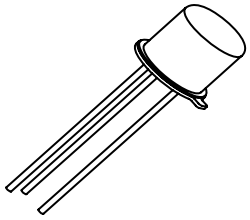
THERMAL CHARACTERISTICS

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

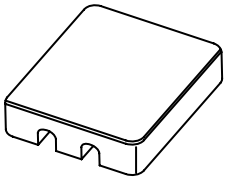
1. See 19500/376 for Thermal Performance Curves.

ELECTRICAL CHARACTERISTICS *(T_A = +25°C, unless otherwise noted)*

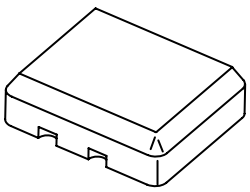
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERTICS				
Collector-Emitter Breakdown Voltage I_C = 10mAdc	$V_{(BR)CEO}$	60		Vdc
Collector-Emitter Cutoff Current V_{CE} = 45Vdc	I_{CES}		5.0	ηAdc
Collector-Base Cutoff Current V_{CB} = 45Vdc V_{CB} = 60Vdc	I_{CBO}		5.0 10	ηAdc μAdc
Collector-Emitter Cutoff Current V_{CE} = 5.0Vdc	I_{CEO}		2.0	ηAdc



TO-18 (TO-206AA)
2N2484



2N2484UA



2N2484UB, UBC
(UBC = Ceramic Lid Version)

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ELECTRICAL CHARACTERISTICS *(T_A = +25°C, unless otherwise noted)*

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

DYNAMIC CHARACTERISTICS

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

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