## s'em'

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	260	Vdc
Collector-Base Voltage	V <sub>CBO</sub>	260	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	Vdc
Collector-Emitter Voltage - 1.5 V	V <sub>CEX</sub>		
	۱ <sub>C</sub>	15	Adc
Collector Current – Peak (Note 1)	I <sub>CM</sub>	25	Adc
Base Current – Continuous	Ι <sub>Β</sub>	1.5	Adc
Total Power Dissipation @ T <sub>C</sub> = 25 C Derate Above 25 C	PD	200 1.43	Watts W/ C
Operating and Storage Junction Tempera- ture Range	T <sub>J</sub> , T <sub>stg</sub>	– 65 to +150	С

## THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction-to-Case	R <sub>JC</sub>	0.625	C/W

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.
1. Pulse Test: Pulse Width = 5 ms, Duty Cycle < 10%.</li>

## MJL3281A (NPN) MJL1302A (PNP)

## ELECTRICAL CHARACTERISTICS ( $T_C = 25$ C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector–Emitter Sustaining Voltage $(I_{C} = 100 \text{ mAdc}, I_{B} = 0)$	V <sub>CEO(sus)</sub>	260	-	Vdc
Collector Cutoff Current ( $V_{CB} = 260 \text{ Vdc}, I_E = 0$ )	I <sub>СВО</sub>	_	50	Adc
Emitter Cutoff Current ( $V_{EB} = 5 Vdc$ , $I_C = 0$ )	I <sub>EBO</sub>	_	5	Adc
SECOND BREAKDOWN				
Second Breakdown Collector with Base Forward Biased ( $V_{CE} = 50 \text{ Vdc}, t = 1 \text{ s} (\text{non-repetitive})$ ( $V_{CE} = 100 \text{ Vdc}, t = 1 \text{ s} (\text{non-repetitive})$	I <sub>S/b</sub>	4 1		Adc
ON CHARACTERISTICS				•
$ \begin{array}{l} DC \ Current \ Gain \\ (I_C = 500 \ mAdc, \ V_{CE} = 5 \ Vdc) \\ (I_C = 1 \ Adc, \ V_{CE} = 5 \ Vdc) \\ (I_C = 3 \ Adc, \ V_{CE} = 5 \ Vdc) \\ (I_C = 5 \ Adc, \ V_{CE} = 5 \ Vdc) \\ (I_C = 8 \ Adc, \ V_{CE} = 5 \ Vdc) \\ (I_C = 8 \ Adc, \ V_{CE} = 5 \ Vdc) \\ \end{array} $	h <sub>FE</sub>	75 75 75 75 45	150 150 150 150 -	
Collector–Emitter Saturation Voltage $(I_{C} = 10 \text{ Adc}, I_{B} = 1 \text{ Adc})$	V <sub>CE(sat)</sub>	_	3	Vdc
DYNAMIC CHARACTERISTICS				•
Current–Gain – Bandwidth Product ( $I_C = 1 \text{ Adc}, V_{CE} = 5 \text{ Vdc}, f_{test} = 1 \text{ MHz}$ )	f <sub>T</sub>	30	_	MHz
Output Capacitance ( $V_{CB} = 10 \text{ Vdc}, I_E = 0, f_{test} = 1 \text{ MHz}$ )	C <sub>ob</sub>	_	600	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.



 $\begin{array}{rcl} XXXXXX &= S\\ A &= Lc\\ YY &= Yc\\ WW &= W \end{array}$ 

\*This information is device data sheet Pb-Free indicator may or may not be

DOCUMENT NUMBER:	98ASB42780B	Electronic versions are uncontrolled except when accessed dire Printed versions are uncontrolled except when stamped "CONT
DESCRIPTION:	TO 3BPL (TO 264)	

onsemi and ONSEMi are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitabil purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all li special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

© Semiconductor Components Industries, LLC, 1994

onsemi, , and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "onsemi" or its affiliates and/or subsidiaries in the United States and/or other countries. onsemi owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of onsemi's product/patent coverage may be accessed at <a href="http://www.onsemi.com/site/pdf/Patent-Marking.pdf">www.onsemi.com/site/pdf/Patent-Marking.pdf</a>. Onsemi reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and onsemi makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or incruit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using onsemi