

PNP SILICON DUAL TRANSISTOR

Qualified per MIL-PRF-19500 /336

DEVICES

2N3810 2N3811
 2N3810L 2N3811L
 2N3810U 2N3811U

LEVELS

JAN
 JANTX
 JANTV
 JANS

ABSOLUTE MAXIMUM RATINGS ($T_C = +25^\circ\text{C}$ 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}	5.0		Vdc
Collector Current	I_C	50		mAdc
		One Section ¹	Both Sections ²	
Total Power Dissipation @ $T_A = +25^\circ\text{C}$	P_T	200	350	mW
Operating & Storage Junction Temperature Range	T_J, T_{stg}	-65 to +200		$^\circ\text{C}$



TO-78

Note:

- Derate linearly 1.143mW/ $^\circ\text{C}$ for $T_A > +25^\circ\text{C}$ (one section)
- Derate linearly 2.00mW/ $^\circ\text{C}$ for $T_A > +25^\circ\text{C}$ (both sections)

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

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
OFF CHARACTERISTICS				
Collector-Emitter Breakdown Voltage $I_C = 100\mu\text{Adc}$	$V_{(BR)CEO}$	60		Vdc
Collector-Base Cutoff Current $V_{CB} = 50\text{Vdc}$ $V_{CB} = 60\text{Vdc}$	I_{CBO}		10 10	ηAdc μAdc
Emitter-Base Cutoff Current $V_{EB} = 4.0\text{Vdc}$ $V_{EB} = 5.0\text{Vdc}$	I_{EBO}		10 10	ηAdc μAdc



TECHNICAL DATA SHEET

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 Website: <http://www.microsemi.com>

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DYNAMIC CHARACTERISTICS (cont.)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Noise Figure				
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 100\text{Hz}$, $R_G = 3.0\text{k}\Omega$ 2N3810, L, U	F ₁		7.0	dB
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 1.0\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3810, L, U	F ₂		3.0	
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 10\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3810, L, U	F ₃		2.5	
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 10\text{Hz to } 15.7\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3810, L, U	F ₄		3.5	
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 100\text{Hz}$, $R_G = 3.0\text{k}\Omega$ 2N3811, L, U	F ₁		4.0	dB
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 1.0\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3811, L, U	F ₂		1.5	
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 10\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3811, L, U	F ₃		2.0	
$I_C = 100\mu\text{A}$ dc, $V_{CE} = 10\text{V}$ dc, $f = 10\text{Hz to } 15.7\text{kHz}$, $R_G = 3.0\text{k}\Omega$ 2N3811, L, U	F ₄		2.5	