

2N4851
2N4852
2N4853

**PN SILICON
UNIJUNCTION TRANSISTOR**



TO-18 (UJT) CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N4851, 2N4852, and 2N4853 are Silicon PN Unijunction Transistors designed for timing, sensing, and trigger circuits.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Emitter Reverse Voltage	V_{B2E}	30	V
Interbase Voltage	V_{B2B1}	35	V
RMS Emitter Current	I_e	50	mA
Peak Emitter Current (Duty Cycle $\leq 1\%$, PRR ≤ 10 pps)	i_e	1.5	A
RMS Power Dissipation	P_D	300	mW
Operating Junction Temperature	T_J	-65 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +200	$^\circ\text{C}$

SYMBOL

V_{B2E}	30	
V_{B2B1}	35	
I_e	50	
i_e	1.5	
P_D	300	
T_J	-65 to +125	
T_{stg}	-65 to +200	

UNITS

V
V
mA
A
mW
$^\circ\text{C}$
$^\circ\text{C}$

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

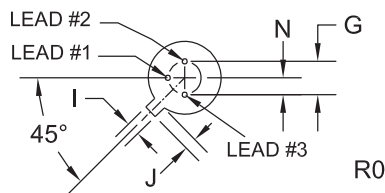
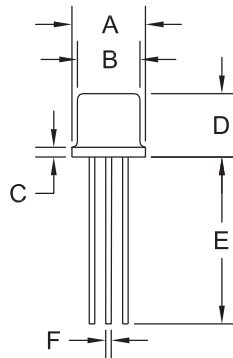
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
η	$V_{B2B1}=10\text{V}$ (2N4851)	0.56	0.75	
η	$V_{B2B1}=10\text{V}$ (2N4852, 2N4853)	0.70	0.85	
R_{BB}	$V_{B2B1}=3.0\text{V}$	4.7	9.1	k Ω
I_{EB2O}	$V_{B2E}=30\text{V}$ (2N4851, 2N4852)		100	nA
I_{EB2O}	$V_{B2E}=30\text{V}$ (2N4853)		50	nA
I_V	$V_{B2B1}=20\text{V}$, $R_{B2}=100\Omega$ (2N4851)	2.0		mA
I_V	$V_{B2B1}=20\text{V}$, $R_{B2}=100\Omega$ (2N4852)	4.0		mA
I_V	$V_{B2B1}=20\text{V}$, $R_{B2}=100\Omega$ (2N4853)	6.0		mA
I_P	$V_{B2B1}=25\text{V}$ (2N4851, 2N4852)		2.0	μA
I_P	$V_{B2B1}=25\text{V}$ (2N4853)		0.4	μA
V_{OB1}	$V_1=20\text{V}$ (2N4851)	3.0		V
V_{OB1}	$V_1=20\text{V}$ (2N4852)	5.0		V
V_{OB1}	$V_1=20\text{V}$ (2N4853)	6.0		V

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TO-18 (UJT) CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Emitter
- 2) Base 1
- 3) Base 2

MARKING: FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (UJT) (REV: R0)

R2 (13-December 2010)