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2N5449
2N5450
2N5451

NPN SILICON TRANSISTOR

JEDEC TO-92-18R CASE

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

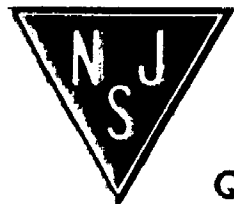
	<u>SYMBOL</u>	<u>2N5449</u>	<u>2N5450</u>	<u>2N5451</u>	<u>UNITS</u>
Collector-Base Voltage	V_{CB0}	50	50	40	V
Collector-Emitter Voltage	V_{CE0}	30	30	20	V
Emitter-Base Voltage	V_{EB0}		5.0		V
Collector Current	I_C		800		mA
Power Dissipation	P_D		625		mW
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
Thermal Resistance	Θ_{JA}		200		$^\circ\text{C/W}$

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

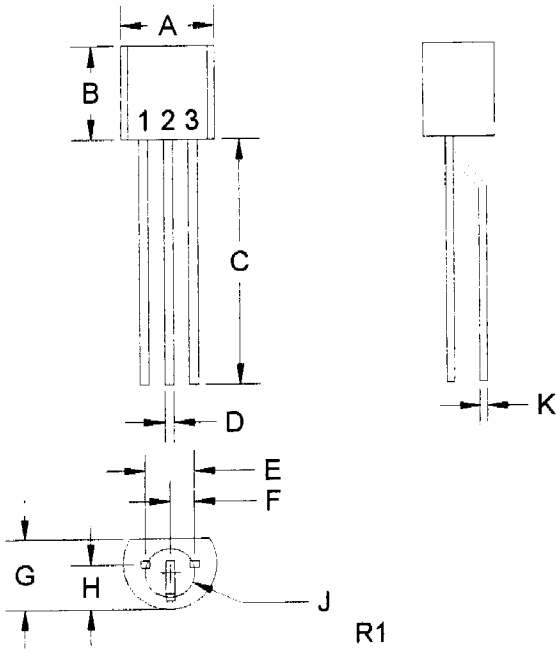
<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N5449</u>		<u>2N5450</u>		<u>2N5451</u>		<u>UNITS</u>
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	
I_{CBO}	$V_{CB}=20\text{V}$		100		100		100	nA
I_{EBO}	$V_{BE}=3.0\text{V}$		100		100		100	nA
BV_{CB0}	$I_C=100\mu\text{A}$	50		50		40		V
BV_{CE0}	$I_C=10\text{mA}$	30		30		20		V
BV_{EB0}	$I_E=100\mu\text{A}$	5.0		5.0		5.0		V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$		0.6		0.8		1.0	V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=100\text{mA}$	0.5	1.0	0.5	1.0	0.5	1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=50\text{mA}$	100	300	50	150	30	600	
C_{cb}	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$		12		12		12	pF
h_{fe}	$V_{CE}=2.0\text{V}, I_C=50\text{mA}, f=20\text{MHz}$	5.0		5.0		5.0		

NJ Semi-Conductors reserves the right to change test conditions, parameters limits and package dimensions without notice information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors



TO-92-18R PACKAGE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
J (DIA)	0.100		2.54	
K	0.015		0.38	

TO-92-18R (REV: R1)

Lead Code:

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