

New Jersey Semi-Conductor Products, Inc.

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2N5954 2N5955 2N5956 NPN
2N6372 2N6373 2N6374 PNP

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COMPLEMENTARY SILICON POWER TRANSISTORS

JEDEC TO-66 CASE

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$ unless otherwise noted)

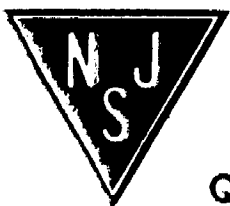
	SYMBOL	2N5954 2N6372	2N5955 2N6373	2N5956 2N6374	UNIT
Collector-Base Voltage	V _{CB0}	90	70	50	V
Collector-Emitter Voltage ($V_{BE}=1.5\text{V}$)	V _{CEV}	90	70	50	V
Collector-Emitter Voltage ($R_{BE}=100\Omega$)	V _{CER}	85	65	45	V
Collector-Emitter Voltage	V _{CEO}	80	60	40	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	5.0	V
Collector Current	I _C	6.0	6.0	6.0	A
Base Current	I _B	2.0	2.0	2.0	A
Power Dissipation	P _D	40	40	40	W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +200			$^\circ\text{C}$
Thermal Resistance	θ_{JC}	4.3			$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	2N5954 2N6372		2N5955 2N6373		2N5956 2N6374		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{CEV}	V _{CE} =85V, V _{BE} =1.5V, R _{BE} =100 Ω		100		-		-	μA
I _{CEV}	V _{CE} =65V, V _{BE} =1.5V, R _{BE} =100 Ω		-		100		-	μA
I _{CEV}	V _{CE} =45V, V _{BE} =1.5V, R _{BE} =100 Ω		-		-		100	μA
I _{CEV}	V _{CE} =85V, V _{BE} =1.5V, R _{BE} =100 Ω , T _C =150 $^\circ\text{C}$		2.0		-		-	mA
I _{CEV}	V _{CE} =65V, V _{BE} =1.5V, R _{BE} =100 Ω , T _C =150 $^\circ\text{C}$		-		2.0		-	mA
I _{CEV}	V _{CE} =45V, V _{BE} =1.5V, R _{BE} =100 Ω , T _C =150 $^\circ\text{C}$		-		-		2.0	mA
I _{CER}	V _{CE} =75V		100		-		-	μA
I _{CER}	V _{CE} =55V		-		100		-	μA
I _{CER}	V _{CE} =35V		-		-		100	μA
I _{CEO}	V _{CE} =65V		1.0		-		-	mA
I _{CEO}	V _{CE} =45V		-		1.0		-	mA
I _{CEO}	V _{CE} =25V		-		-		1.0	mA
I _{EB0}	V _{BE} =5.0V		0.1		0.1		0.1	mA
BV _{CEV}	V _{BE} =1.5V, I _C =0.1A, R _{BE} =100 Ω	90		70		50		V
BV _{CER}	I _C =0.1A, R _{BE} =100 Ω	85		65		45		V
BV _{CEO}	I _C =0.1A	80		60		40		V
V _{CE(SAT)}	I _C =2.0A, I _B =0.2A		1.0		-		-	V
V _{CE(SAT)}	I _C =2.5A, I _B =0.25A		-		1.0		-	V
V _{CE(SAT)}	I _C =3.0A, I _B =0.3A		-		-		1.0	V
V _{CE(SAT)}	I _C =6.0A, I _B =1.2A (NPN types)		2.0		2.0		2.0	V
V _{BE(ON)}	V _{CE} =4.0V, I _C =2.0A		2.0		-		-	V
V _{BE(ON)}	V _{CE} =4.0V, I _C =2.5A		-		2.0		-	V
V _{BE(ON)}	V _{CE} =4.0V, I _C =3.0A		-		-		2.0	V
V _{BE(ON)}	V _{CE} =4.0V, I _C =6.0A (PNP types)		3.0		3.0		3.0	V

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



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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>2N5954</u> <u>2N6372</u>		<u>2N5955</u> <u>2N6373</u>		<u>2N5956</u> <u>2N6374</u>		<u>UNIT</u>
		<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>	
hFE	$V_{CE}=4.0V, I_C=2.0A$	20	100	-	-	-	-	
hFE	$V_{CE}=4.0V, I_C=2.5A$	-	-	20	100	-	-	
hFE	$V_{CE}=4.0V, I_C=3.0A$	-	-	-	-	20	100	
hFE	$V_{CE}=4.0V, I_C=6.0A$	5.0		5.0		5.0		
hfe	$V_{CE}=4.0V, I_C=0.5A, f=1.0kHz$	25		25		25		
f _T	$V_{CE}=4.0V, I_C=1.0A, f=1.0MHz$ (PNP types)	4.0		4.0		4.0		MHz
f _T	$V_{CE}=4.0V, I_C=1.0A, f=1.0MHz$ (NPN types)	5.0		5.0		5.0		MHz