

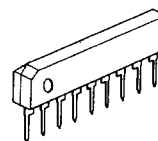
NJD6506/6507

The NJD6506 and NJD6507 each consist of four general purpose silicon NPN transistors on common emitter. The NJD6506 contains resistors for input bias.

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Collector to Emitter Voltage	(6506)	V_{CER}	20V
	(6507)	V_{CEO}	20V
Collector to Base Voltage	(6507)	V_{CBO}	25V
Emitter to Base Voltage	(6507)	V_{EBO}	5V
Peak-to-Peak Collector		I_{CMAX}	200mA
Power Dissipation		P_D	500mW
Operating Temperature Range		T_{opr}	$-20 \sim +75^\circ\text{C}$
Storage Temperature Range		T_{stg}	$-40 \sim +125^\circ\text{C}$

Package Outline



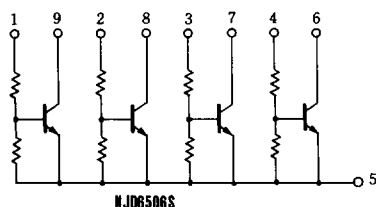
NJD6506S

NJD6507S

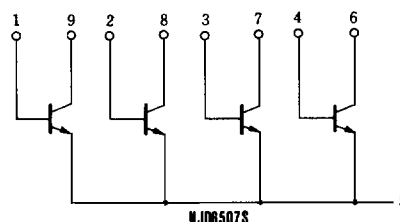
Electrical Characteristics ($T_a=25^\circ\text{C}$)

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
6506						
Leakage Current	$V_0=20\text{V}, V_{\text{IN}}=0.2\text{V}$	I_L	—	—	2.0	μA
Output Voltage	$V^+=10\text{V}, V_{\text{IN}}=10\text{V}, R_L=400\Omega$	V_{CL}	—	—	120	mV
Output Voltage	$V^+=10\text{V}, V_{\text{IN}}=10\text{V}, R_L=10\text{k}\Omega$	V_{CL}	—	—	12.0	mV
Output Voltage	$V^+=10\text{V}, V_{\text{IN}}=0.2\text{V}, R_L=400\Omega$	V_{OH}	9.8	—	—	V
6507						
Collector to Emitter Cutoff Current	$V_{\text{CE}}=20\text{V}$	I_{CEO}	—	—	10	μA
Collector to Base Cutoff Current	$V_{\text{CB}}=25\text{V}$	I_{CBO}	—	—	1	μA
DC Current Gain	$V_{\text{CE}}=6\text{V}, I_B=10\mu\text{A}$	H_{FE}	60	—	600	
Base to Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$	$V_{\text{BE SAT}}$	—	—	0.95	V
Collector to Emitter Saturation Voltage	$I_C=10\text{mA}, I_B=1\text{mA}$	V_{CESAT}	—	—	0.2	V
Collector to Emitter Saturation Voltage	$I_C=50\text{mA}, I_B=5\text{mA}$	V_{CESAT}	—	—	0.5	V

Equivalent Circuit & Pin Connection



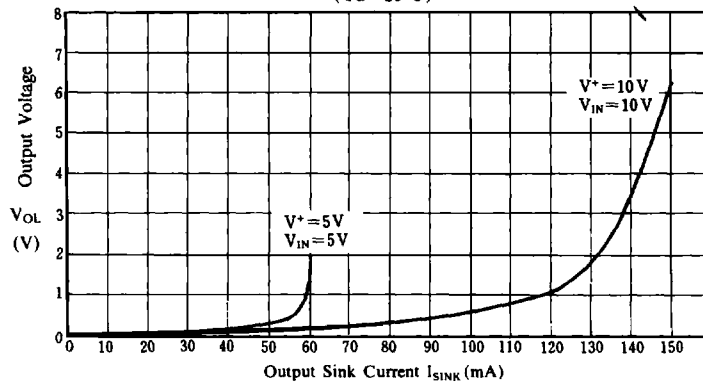
All resistor is 20k Ω type.



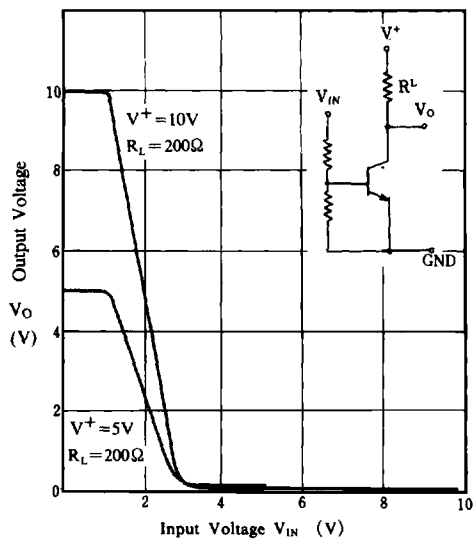
Note: Five transistors in 14-Lead Dual In Line package is available.

■ Typical Characteristics

NJD6506 Output Voltage vs. Output Sink Current
($T_a = 25^\circ\text{C}$)



NJD6506 Input Voltage vs. Output Voltage
($T_a = 25^\circ\text{C}$)



NJD6507 Collector Current vs. Collector to Emitter Voltage
($T_a = 25^\circ\text{C}$)

