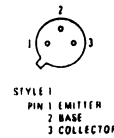
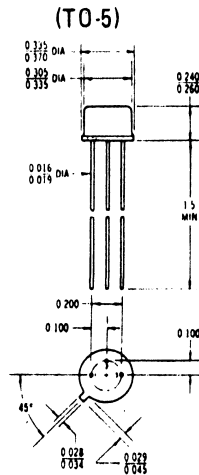


**2N527 (GERMANIUM)**

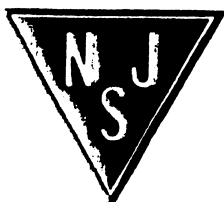
PNP germanium transistor for switching and amplifier applications in the audio-frequency range.

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Collector-Base Voltage	$V_{CB}$	45	Vdc
Collector-Emitter Voltage	$V_{CEO}$	30	Vdc
Emitter-Base Voltage	$V_{EB}$	15	Vdc
Collector Current	$I_C$	500	mAdc
Storage and Operating Temperature	$T_{stg}, T_J$	-65 to +100	°C
Collector Dissipation @ 25°C Ambient	$P_D$	225	mW
Thermal Resistance Junction to Ambient	$\theta_{JA}$	0.333	°C/mW
Thermal Resistance (infinite heat sink)	$\theta_{JC}$	0.15	°C/mW



All JEDEC dimensions and notes apply



NJ Semi-Conductors reserves the right to change test conditions, parameter 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.

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise specified)

Characteristics	Symbol	Min	Max	Unit
Collector Cutoff Current (V <sub>CB</sub> = 30 Vdc, I <sub>E</sub> = 0)	I <sub>CBO</sub>	-	10	μAdc
Emitter Cutoff Current (V <sub>EB</sub> = 15 Vdc, I <sub>C</sub> = 0)	I <sub>EBO</sub>	-	10	μAdc
Collector-Emitter Breakdown Voltage (I <sub>C</sub> = 0.6 mAdc, R <sub>BE</sub> = 10K)	BV <sub>CER</sub>	30	-	Vdc
Collector-Emitter Reach Through (Punch-Thru) Voltage (V <sub>EB</sub> = 1 Vdc, VTVM Z ≥ 1 Megohm)	V <sub>RT</sub>	30	-	Vdc
Static Forward-Current Transfer Ratio (V <sub>CE</sub> = 1 Vdc, I <sub>C</sub> = 20 mAdc)	h <sub>FE</sub>	72	121	-
Small-Signal Short-Circuit Forward Current Transfer Ratio Frequency Cutoff (V <sub>CB</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc)	f <sub>ob</sub>	1.5	7.0	MHz
Output Capacitance (V <sub>CB</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 MHz)	C <sub>ob</sub>	5.0	40	pF
Small-Signal Open Circuit Output Admittance (V <sub>CB</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 kHz)	h <sub>ob</sub>	0.10	0.8	μmho
Small-Signal Open Circuit Reverse Transfer Voltage Ratio (V <sub>CR</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 kHz)	h <sub>rb</sub>	1.0	14	X10 <sup>-4</sup>
Small-Signal Short Circuit Input Impedance (V <sub>CB</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 kHz)	h <sub>ib</sub>	26	31	ohms
Collector-Emitter Saturation Voltage (I <sub>B</sub> = 0.67 mAdc, I <sub>C</sub> = 20 mAdc)	V <sub>CE (sat)</sub>	-	130	mVdc
Base Input Voltage (V <sub>CE</sub> = 1 Vdc, I <sub>C</sub> = 20 mAdc)	V <sub>BE</sub>	180	260	
Noise Figure (V <sub>CB</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 kHz, BW = 1 Hz)	NF	-	15	dB
Small-Signal Short-Circuit Forward-Current Transfer Ratio (V <sub>CE</sub> = 5 Vdc, I <sub>E</sub> = 1 mAdc, f = 1 kHz)	h <sub>fe</sub>	60	120	