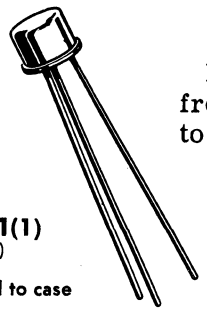
2N1924 thru 2N1926 (GERMANIUM)



CASE 31(1)
(TO-5)
Base connected to case

PNP germanium transistors for general purpose, low-frequency applications. Characteristics curves similar to 2N524-2N527 series.

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CB}	60	Vdc
Collector-Emitter Voltage	V_{CEO}	40	Vdc
Emitter-Base Voltage	V_{EB}	25	Vdc
Collector Current	I_C	500	mAdc
Junction and Storage Temperature	T_J & T_{stg}	-65 to +100	°C
Power Dissipation at 25°C Ambient	P_D	225	mW

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristics	Symbol	Min	Max	Unit
Collector Cutoff Current V_{CB} = -45 Vdc, I_E = 0	I_{CBO}	–	10	μAdc
Emitter Cutoff Current V_{EB} = -25 Vdc, I_C = 0	I_{EBO}	–	10	μAdc
Collector-Base Voltage I_C = 200 μAdc, I_E = 0	V_{CBO}	60	–	Vdc
Collector-Emitter Voltage I_C = 50 μAdc, V_{BE} = +1.5 Vdc, R_{BE} = 10 K	V_{CEX}	50	–	Vdc
Collector-Emitter Voltage I_C = 0.6 mAdc, R_{BE} = 10 K	V_{CER}	40	–	Vdc
Punch-Thru Voltage (V_{EB} = 1 Vdc, VTVM Z ≥ 1 Megohm)	V_{pt}	50	–	Vdc

ELECTRICAL CHARACTERISTICS (continued)

Characteristics	Symbol	Min	Max	Unit
DC Current Gain I_C = 20 mAdc, V_{CE} = -1 Vdc	h_{FE}			
2N1924		34	65	–
2N1925		53	90	
2N1926		72	121	
DC Current Gain I_C = 100 mAdc, V_{CE} = -1 Vdc	h_{FE}			
2N1924		30	–	–
2N1925		47	–	
2N1926		65	–	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			
I_B = 1.33 mAdc, I_C = 20 mAdc 2N1924		50	110	mVdc
I_B = 1.0 mAdc, I_C = 20 mAdc 2N1925		55	110	
I_B = 0.67 mAdc, I_C = 20 mAdc 2N1926		60	110	
Base Input Voltage V_{CE} = -1 Vdc, I_C = 20 mAdc	V_{BE}			
2N1924		200	300	mVdc
2N1925		190	290	
2N1926		180	280	
Output Capacitance; Input AC Open Circuit V_{CB} = -5 Vdc, I_E = 1 mAdc, f = 1 MHz	C_{ob}	–	30	pF
Frequency Cutoff V_{CB} = -5 Vdc, I_E = 1 mAdc	$f_{\alpha b}$			
2N1924		1.0	–	MHz
2N1925		1.3	–	
2N1926		1.5	–	
Small-Signal Short-Circuit Forward-Transfer Current Ratio V_{CE} = -5 Vdc, I_E = 1 mAdc, f = 1 kHz	h_{fe}			
2N1924		30	64	–
2N1925		44	88	
2N1926		60	120	
Small-Signal Open Circuit Output Admittance V_{CE} = -5 Vdc, I_E = 1 mAdc, f = 1 kHz	h_{oe}			
2N1924		15	60	μmho
2N1925		20	65	
2N1926		25	70	
Small-Signal Open-Circuit Reverse-Transfer Voltage Ratio V_{CE} = -5 Vdc, I_E = 1 mAdc, f = 1 kHz	h_{re}			
2N1924		2.0	8.0	$X10^{-4}$
2N1925		3.0	9.0	
2N1926		4.0	10	
Small-Signal Short-Circuit Input Impedance V_{CE} = -5 Vdc, I_E = 1 mAdc, f = 1 kHz	h_{ie}			
2N1924		700	2200	ohms
2N1925		1200	3200	
2N1926		1500	4200	