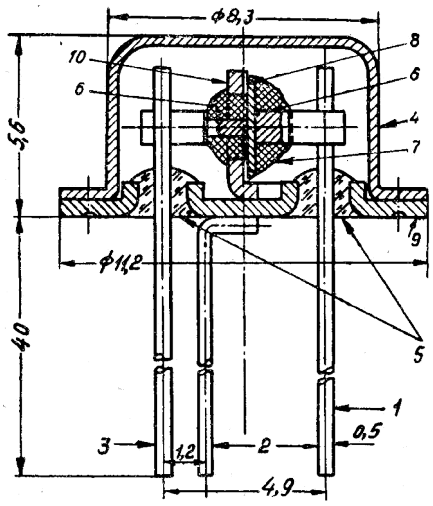
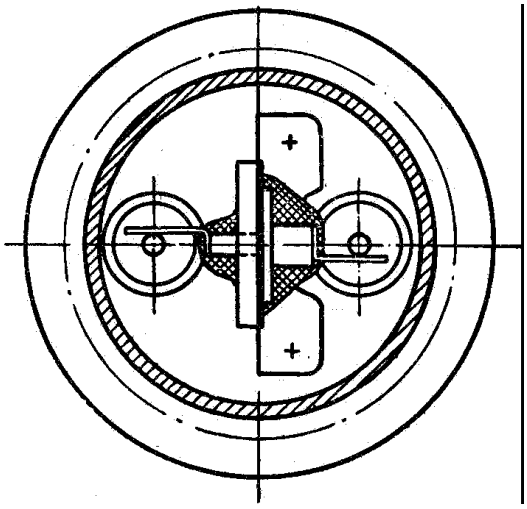
П6А, П6Б. П6В, П6Г, П6Д

Low frequency germanium alloy p-n-p transistors. Intended for use in output stages and switching circuits. Packaged in welded metal can with glass insulator and radiator.





Nominal electrical characteristics

Frequency limit for current amplification, common base topology	
П6А	> 100 kHz
П6Б, П6В, П6Д	> 465 kHz
П6Г	> 1000 kHz
Current gain, common base topology	
П6А, П6Д	> 0,9
П6Б	0,90…0,94
П6В	> 0,94 (0,995)*
П6Г	> 0,97
Current gain, common emitter topology	
П6А, П6Д	> 9
П6Б	9…15
П6В	15…49
П6Г	> 32
Power gain	
П6А	> 30 dB (35 dB)*
П6Б, П6В, П6Д	> 34 dB (38 dB)*
П6Г	> 37 dB (40 dB)*
Collector’s reverse current	
П6А	< 30 μA (20 μA)*
П6Б – П6Д	< 15 μA (10 μA)*
Emitter’s reverse current	
П6А	< 30 μA
П6Б – П6Д	< 15 μA
Input resistance	25…35 Ohm (40 Ohm)*
Output conductance	
П6А, П6Г	< 3,3 μmho
П6Б, П6В, П6Д	< 2 μmho (1 μmho)*
Voltage feedback coefficient	
П6А	$< 5x10^{-3}$
П6Б – П6Д	$< 6x10^{-4}$ ($2,5x10^{-4}$)*
Collector capacitance	
П6А	< 30 pF (40 pF)*
П6Б – П6Д	< 50 pF (40 pF)*
Noise coefficient	
П6А - П6Г	< 33 dB (22 dB)*
П6Д	< 12 dB
Lifespan	5000 h
Thermal resistance	0,5 °C/mW

** according to some sources*

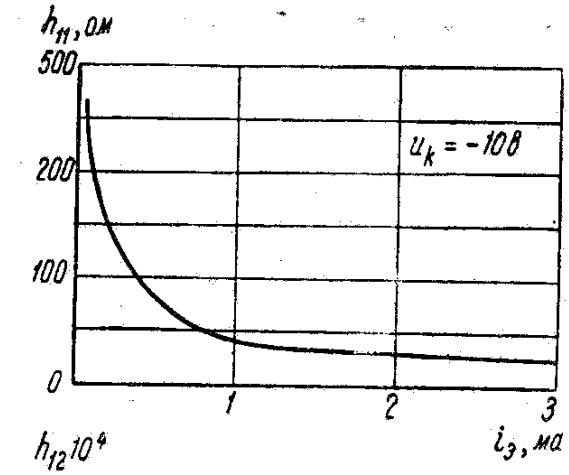
Absolute Maximum Ratings

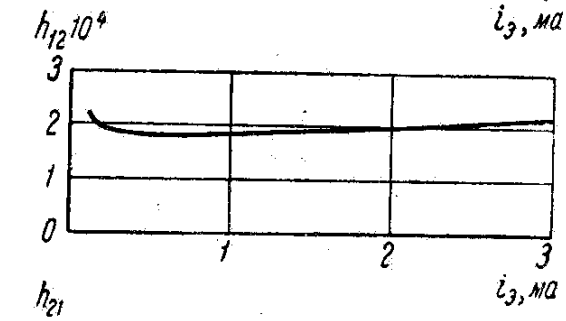
Collector amplification current	30 mA (10 mA)*
Collector switching current	100 mA (50 mA)*
Collector voltage	30 V (15 V)*
Power dissipation	150 mW
Ambient temperature	-50…+60 °C
Collector temperature	-60 … +100 °C
Sustained vibration	12 g
Repeated shocks with acceleration	100 g

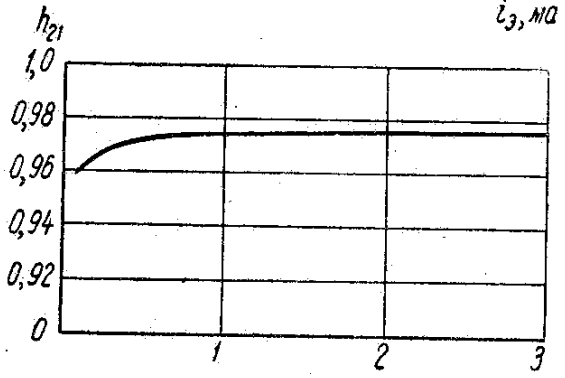
** according to some sources*

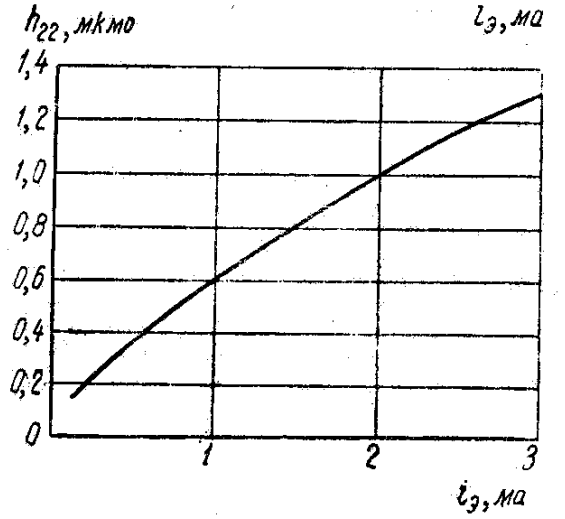
Parameters vs.

emitter current

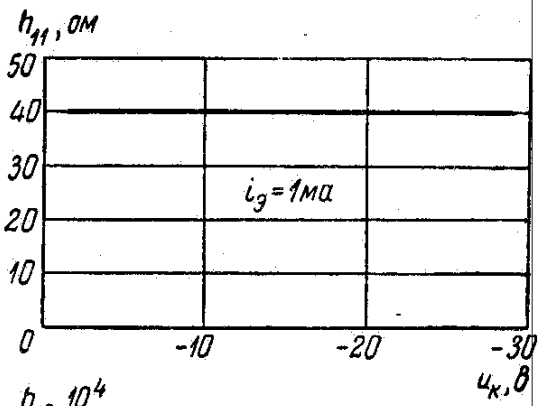


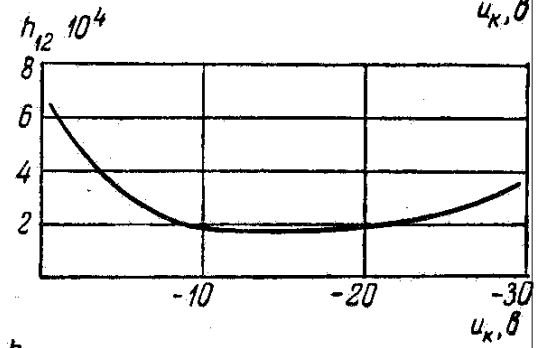


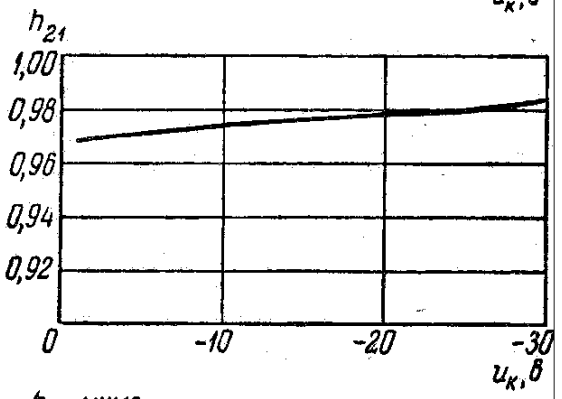


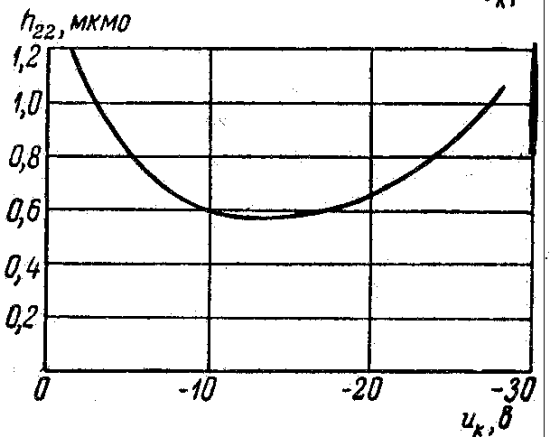


collector voltage

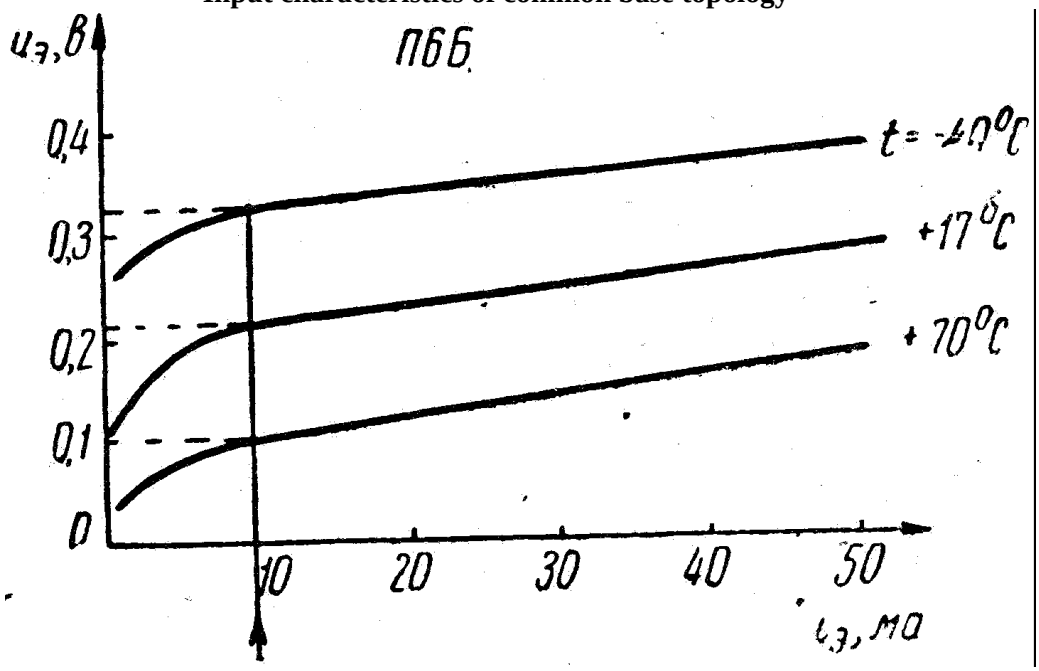




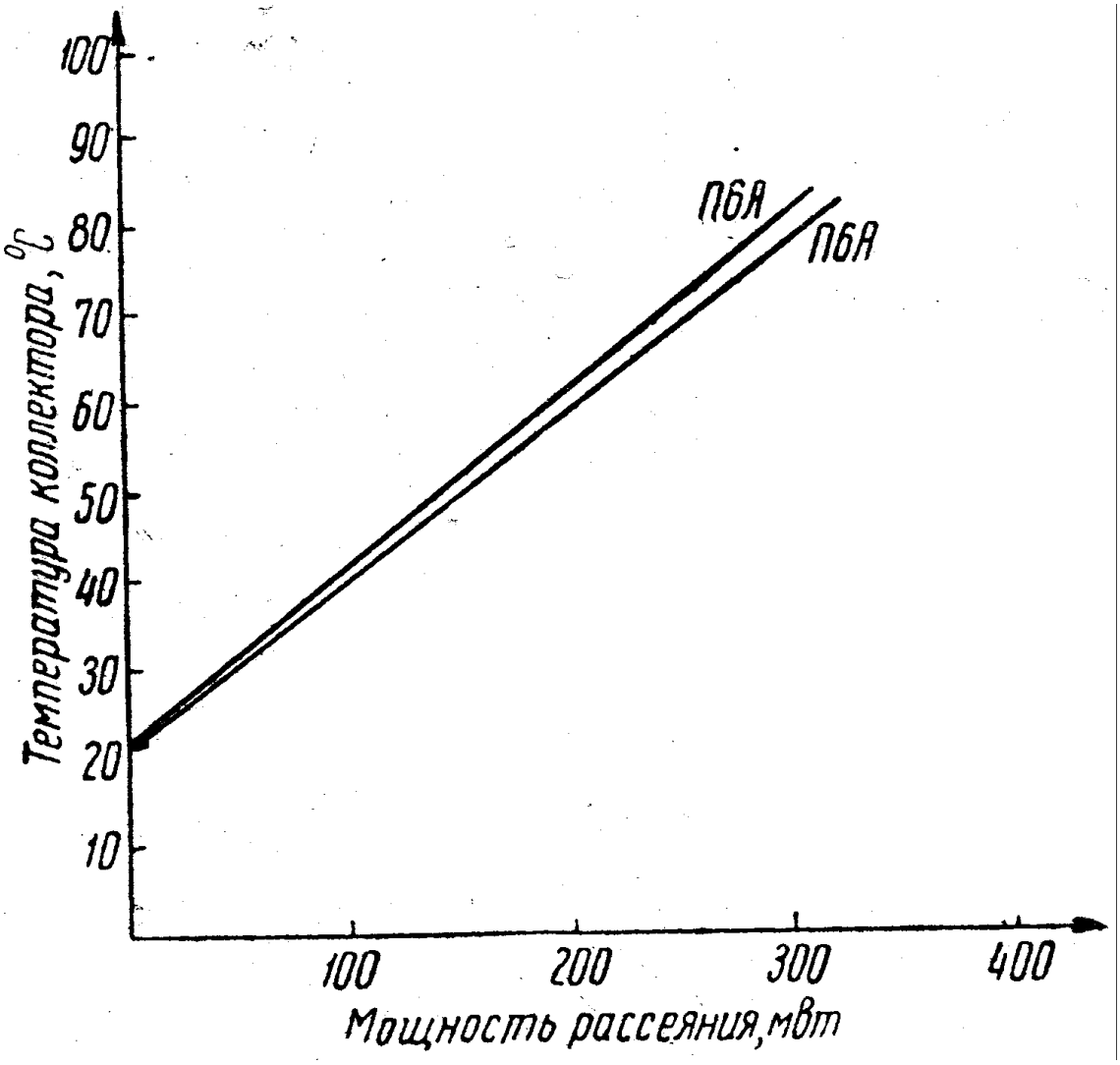




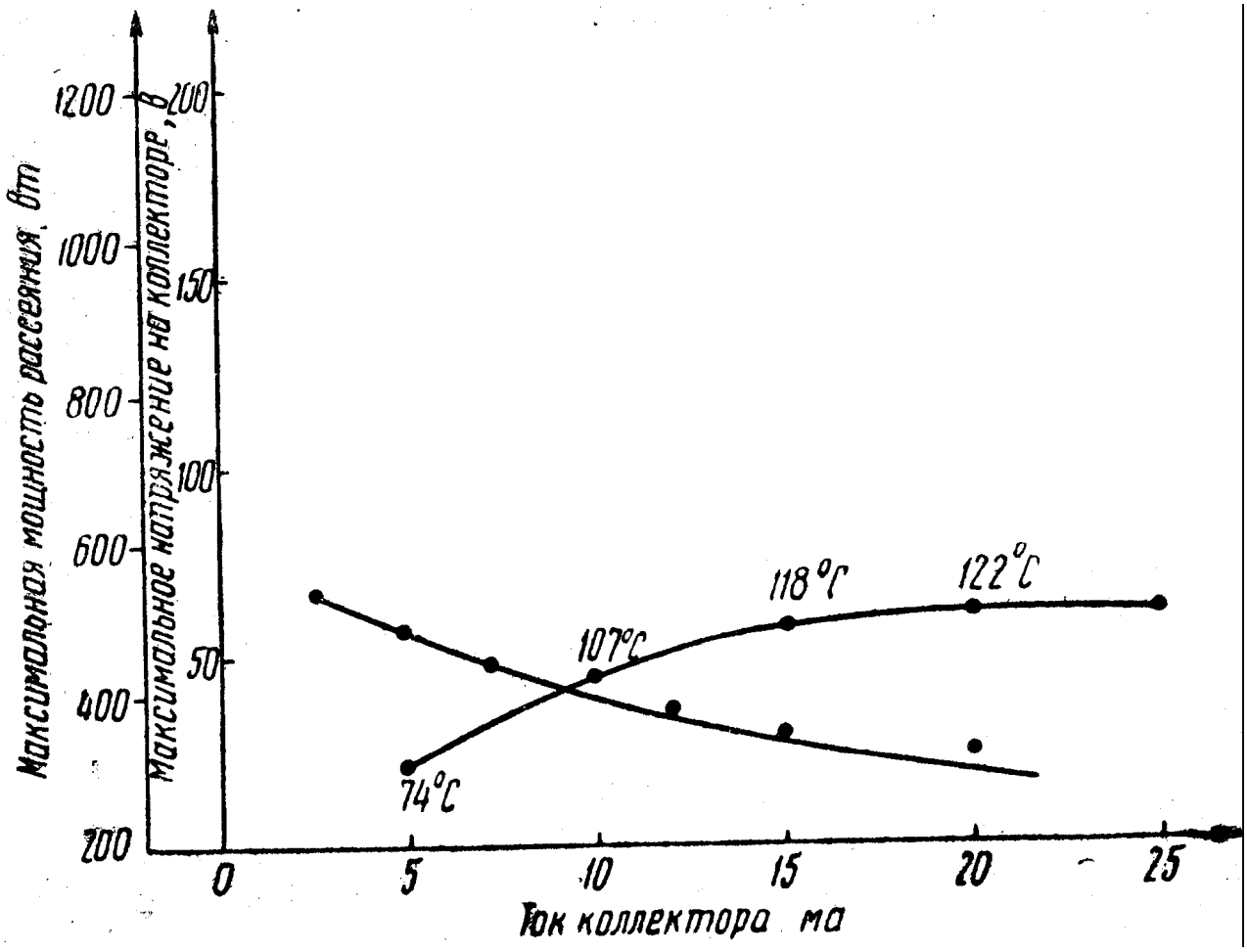
Input characteristics of common base topology



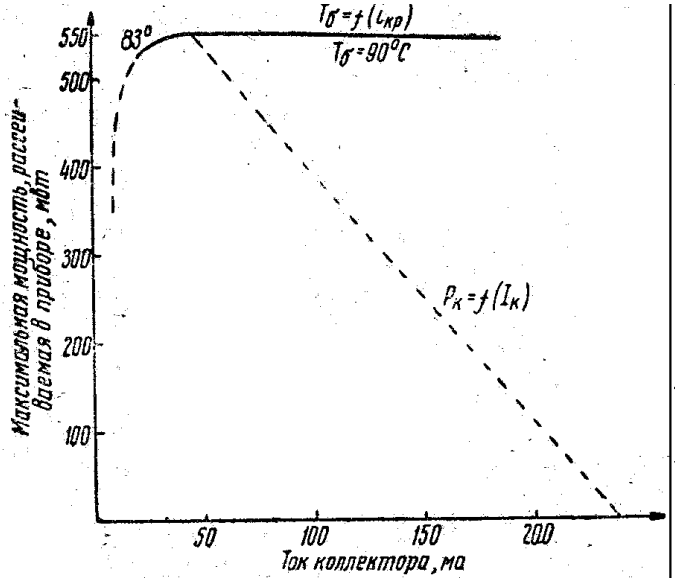
Collector junction temperature, °C vs dissipated power, mW



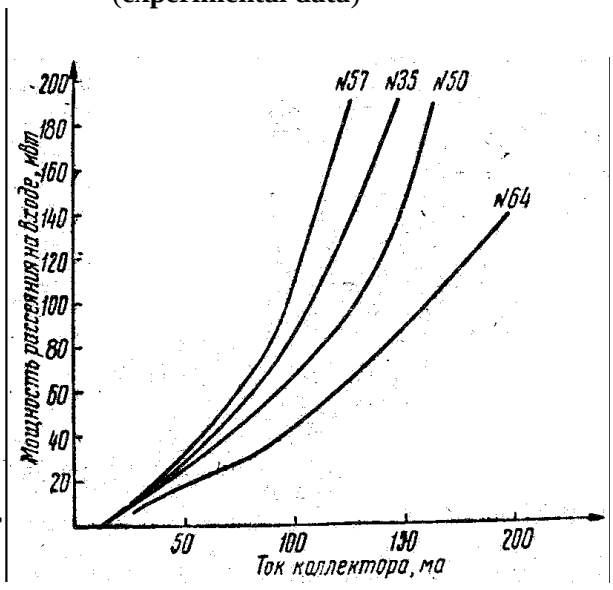
Maximum dissipated power W(?), voltage, V, and collector junction temperature vs collector current, mA



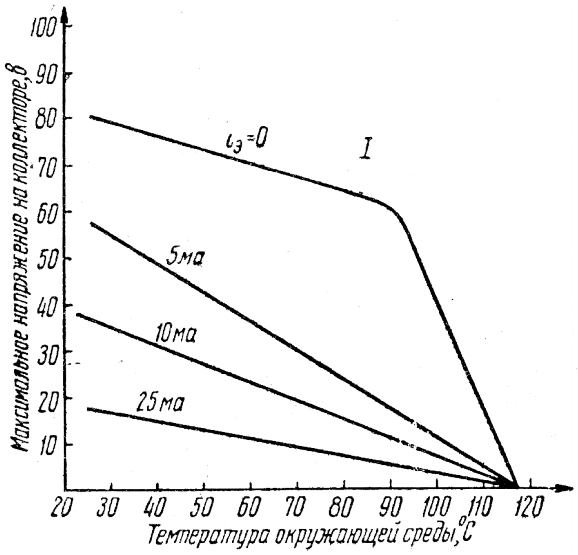
Maximum dissipated power, mW and case temperature vs collector current, mA



Maximum power dissipated at the input, mW vs collector current, mA (experimental data)



Maximum collector voltage, V vs ambient temperature



Maximum power, mW(?) vs ambient temperature