



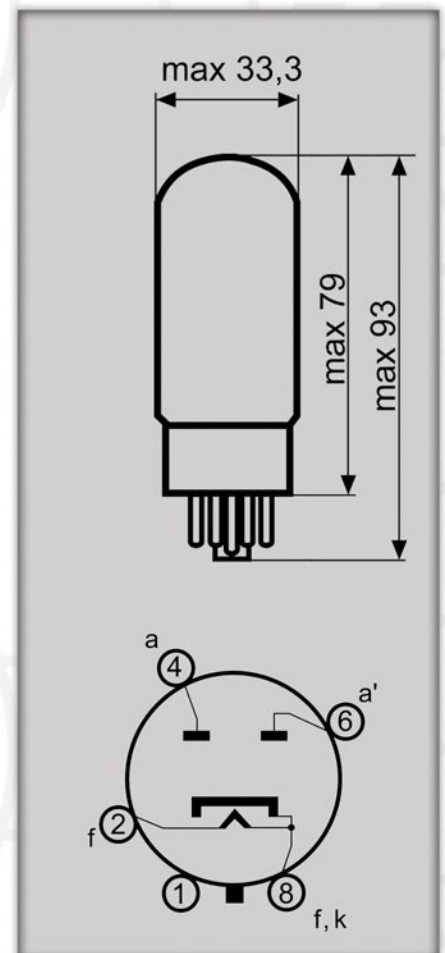
# TELEFUNKEN

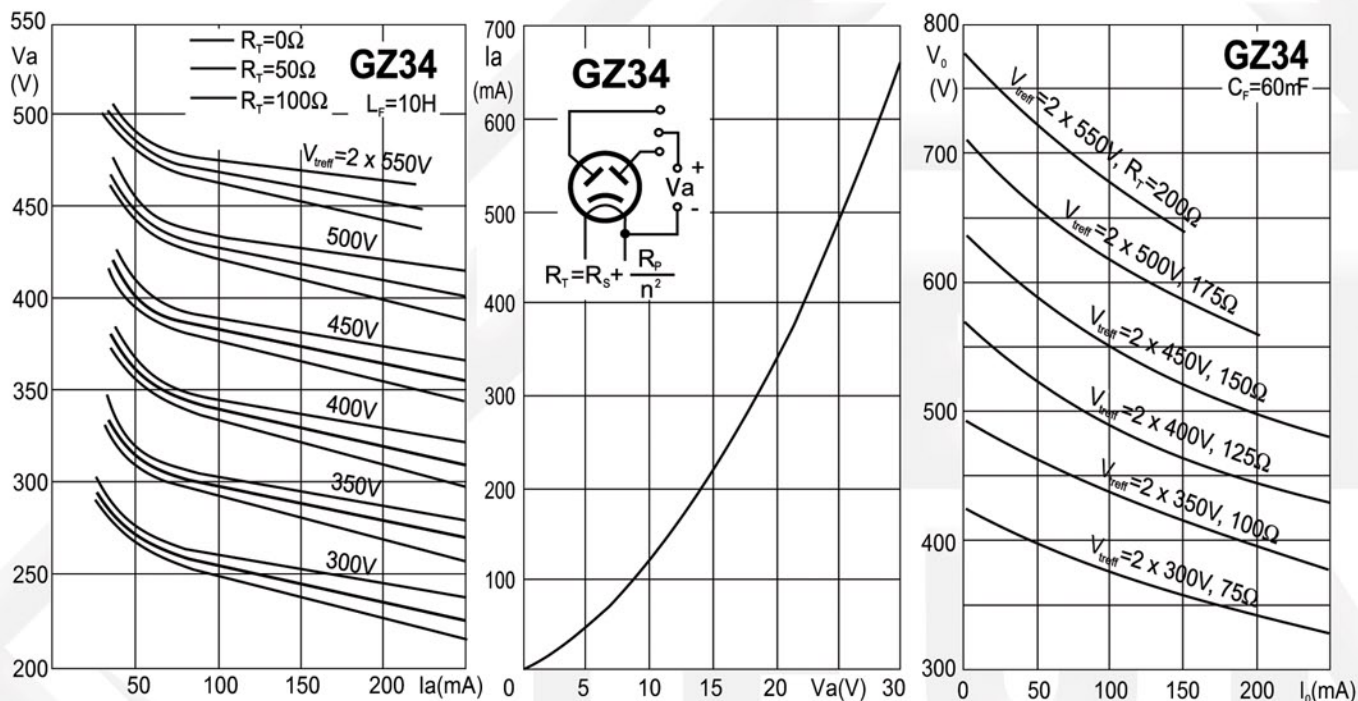
## Elektroakustik

### GZ34-TK TUBE DATA SHEET



Mechanical						
Type	Double Anode Rectifying Tube					
Base	Octal					
Number of Pins	5-Pin					
Heater Requirements - Indirect by A.C. or D.C.						
Parameter	Symbol	Value	Unit			
Heater Voltage	$V_f$	5	V			
Heater Current	$I_f$	1.9	A			
Maximum Ratings - Design Maximum Values						
Capacitor Input (f = 50 Hz)						
Parameter	Symbol	Value	Unit			
Peak Inverse Plate Voltage	$-V_{ainvp}$	1500	-	V		
Peak Plate Current	$I_{ainvp}$	750	-	mA		
Input Capacitor of Smoothing Filter	$C_{filt}$	60	-	$\mu F$		
Transformer Voltage	$V_{tref}$	2x300	2x550	V		
Output D.C. Current	$I_o$	250	160	mA		
Limiting Resistor (minimum)	$R_t$	2x50	2x175	$\Omega$		
Choke Input (f = 50 Hz)						
Peak Inverse Plate Voltage	$-V_{ainvp}$	1500	-	V		
Peak Plate Current	$I_{ainvp}$	750	-	mA		
Transformer Voltage	$V_{tref}$	2x300	2x550	V		
Output D.C. Current	$I_o$	250	225	mA		
Typical Operation and Characteristics						
Capacitor Input (f = 50 Hz)						
Parameter	Symbol	Value				Unit
Transformer Voltage	$V_{tref}$	2x300	2x400	2x500	2x550	V
Output D.C. Current	$I_o$	250	250	200	160	mA
Input Capacitor of Smoothing Filter	$C_{filt}$	60	60	60	60	$\mu F$
Limiting Resistor (minimum)	$R_t$	2x75	2x125	2x175	2x200	$\Omega$
Output D.C. Voltage	$V_o$	330	430	560	640	V
Choke Input (f = 50 Hz)						
Transformer Voltage	$V_{tref}$	2x300	2x400	2x500	2x550	V
Output D.C. Current	$I_o$	250	250	250	225	mA
Choke Inductance	$L$	10	10	10	10	H
Limiting Resistor (minimum)	$R_t$	0	0	0	0	$\Omega$
Output D.C. Voltage	$V_o$	250	330	420	465	V





## GZ34 HISTORY

The TELEFUNKEN GZ34-TK is an excellent replacement for any amplifier using GZ34 or 5AR4 rectifier tubes.

The GZ34 isn't a very talked about tube, but it is one of the most common rectifier tubes found in audio, especially in guitar amps. Rectifier tubes were some of the very first tubes to be invented since their purpose is one of the first requirements in electronic and audio design.

A rectifier is an electronic device that converts alternating current (AC), which periodically reverses direction, to direct current (DC), which flows in only one direction. The rectifier is indeed an essential block that helps create the sound of an amplifier.

## BLACK DIAMOND SERIES VACUUM TUBES

TELEFUNKEN vacuum tubes have been the benchmark of excellence in all audio applications, both production and reproduction, for many decades. Today, this rich history continues with the introduction of new production tubes from TELEFUNKEN Elektroakustik, in partnership with JJ Tubes from the Carpathian Mountains of Cadca in Slovakia.

Each tube is meticulously measured for all critical parameters of performance including transconductance, gain, noise, and microphonics. All TELEFUNKEN branded tubes are hand picked to be the best examples of Eastern European construction in the proud tradition with which the name TELEFUNKEN Elektroakustik has become synonymous.

In addition to the rigorous testing procedure, all new production TELEFUNKEN tubes are cryogenically treated to ensure durability, and subjected to an extended burn-in period to ensure superior stability. The tubes are re-measured subsequent to burn-in, and again before final packaging, in order to guarantee that only the best, lowest noise tubes are offered.