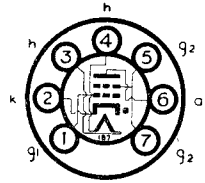
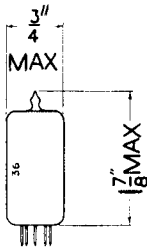


## Industrial Type

### TYPE 2D21 MINIATURE HOT CATHODE GAS FILLED THYRATRON



#### RATINGS

Heater Voltage	...	...	...	...	...	6.3 volts
Heater Current	...	...	...	...	...	0.6 amp.
Cathode Heating Time	...	...	...	...	...	10 secs. min.
Peak Forward Anode Voltage	...	...	...	...	...	650 volts max.
Peak Inverse Voltage	...	...	...	...	...	1,300 volts max.
Peak Screen Grid Voltage before Conduction	...	...	...	...	...	-100 volts max.
†Average Voltage during Conduction	...	...	...	...	...	-10 volts max.
Peak Control Grid Voltage before Conduction	...	...	...	...	...	-100 volts max.
Peak Cathode Current	...	...	...	...	...	0.5 amp. max.
†Average Cathode Current	...	...	...	...	...	0.1 amp. max.
Surge Current (Duration 0.1 sec. max.)	...	...	...	...	...	10 amps. max.
†Average Screen Current	...	...	...	...	...	0.01 amp. max.
†Average Control Grid Current	...	...	...	...	...	0.01 amp. max.
Grid Circuit Resistance	...	...	...	...	...	10 MΩ max.
Peak Heater-Cathode Voltage, Heater Negative	...	...	...	...	...	100 volts max.
Peak Heater-Cathode Voltage, Heater Positive	...	...	...	...	...	25 volts max.
Ambient Temperature Range	...	...	...	...	...	-75°C. to 90°C.

† Averaged over any interval of 30 seconds.

#### OPERATING CHARACTERISTICS

Voltage Drop	...	...	...	...	...	8 volts approx.
Control Grid Control Ratio ( $R_{g1} = 0\Omega$ )	...	...	...	...	...	250 approx.
Screen Grid Control Ratio ( $R_{g2} = 0\Omega$ )	...	...	...	...	...	1,000 approx.

#### RELAY SERVICE

Anode Voltage	...	...	...	...	117	460	volts R.M.S.
Direct Screen Grid Voltage	...	...	...	...	0	0	volts
Control Grid Voltage (180° out of phase with $V_a$ )	...	...	...	...	5	—	volts R.M.S.
Direct Control Grid Voltage	...	...	...	...	—	-6	volts
Control Grid Signal Voltage	...	...	...	...	5	6	volts peak
Control Grid Circuit Resistance	...	...	...	...	1.0	1.0	MΩ
*Anode Circuit Resistance	...	...	...	...	1.2	2.0	kΩ

\* Anode circuit resistance, including the valve load, must be sufficient to prevent the cathode current from exceeding the valve ratings.

#### INTER-ELECTRODE CAPACITANCES

Grid to Anode	...	...	0.026 pF	Output	...	...	1.6 pF
Input	...	...	2.4 pF				

