NAVY TYPE: CEL 1552
GRID-CONTROL RECTIFIER TUBE
EL C5B

Tantalum Anode and Xenon Gas Filling

D-c. Amperes Output (Max. Rated)  3
D-c. Meter Value—Continuous
D-c. Meter Value—Overload less than 3 sec.  10
Oscillograph Peak—Continuously recurring  75

Peak Forward Volts (Max. Instantaneous)  750
Peak Inverse Volts (Max. Instantaneous)  1600
Nominal A-c. Volts per Anode  110-440

Average Arc Drop Volts
Highest Tube  12
Average Tube  9

Filament
Volts  2.5
Ampere  Approx. 1 min.
Heating Time  2343

Grid Characteristics
Critical Grid Volts @ p.f.v.  -1.5 to 1.5
Critical Grid Current  Below 10 Microamps
Maximum Negative Grid Volts  100
Starting Volts (Instantaneous)  500
Highest Tube  200
Average Tube  100
Maximum De-ionization Time  Approx. 1 Millisecond

Grid-anode Capacity  Approx. 10 uuf
Grid-filament Capacity  Approx. 10 uuf

Max. A-c. Short-circuit Current (0.1 sec.)  600A

Overall Dimensions
Weight  2½ x 1½ x 1"  12.5 Ozs.

Connections
Filament
Anode & Grid  Mogul Screw Socket
Pins at top for clip connection

Ambient Temperature Limits  -40 to 465°F.

The filament must be lit before the d-c. load is applied.

All of the above values are for returns to the filament center tap.

ELECTRONS, INC.
127 Sussex Avenue
Newark, 4, N.J.

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Type CEL 1552 may be used in place of a half-wave rectifier tube of similar rating in the usual rectifier circuits. By controlling initiation of the arc with the grid it is possible to adjust the average or d-c. meter reading of the output of the rectifier from zero to the value it would have if half-wave rectifier tubes were used.

The type CEL 1552 may be used to control the speed of a motor. One method is to connect the armature of a separately excited d-c. shunt motor through the tube to an a-c. line. Voltage applied from grid to cathode may then be used to determine the flow of load current to the motor.