from RMA release # 539, Nov. 25, 1946

NATIONAL UNION ELECTRON TUBE

NEW DATA

N.U. 2C53

HIGH MU TRIODE AMPLIFIER

The 2C53 is a Very High Mu Triode designed for use in regulated power supplies or voltage amplifiers operating at plate potentials between 1 and 8 kv. This tube is particularly useful as a shunt regulator in equipment requiring stabilized output voltage essentially independent of line voltage variations and variations in load current.

Low capacities, high gain, and high voltage ratings make this tube well suited for television and oscilloscope sweep circuits employing electrostatic deflection.

MAXIMUM RATINGS:-

Heater Voltage	6.3	Volts	± 10%
Anode Voltage	8000	Volts	max.
Plate Current (Average)	5.0	ma.	max.
Plate Current (Peak)	100	ma.	max.
Grid Voltage	-200	Volts	max.
Plate Dissipation	12.0	Watts	max.
Heater cathode voltage	±300	Volts	max.

ELECTRICAL RATINGS:-

Heater		Unipotential Cathode		
Voltage		-6.3	Volts	± 10%
Current		.30	Amps.	
Amplification Factor		500		
Plate Resistance	@ Eb = 4 kv	.525	megs.	
Transconductance	@ Ec = -5 V	950	umhos	

DIRECT INTERELECTRODE CAPACITANCES:-

Grid to Plate	.62	uuf.
Grid to Cathode	5.20	uuf.
Cathode to Plate	2.30	uuf.

MECHANICAL RATINGS:-

Maximum Overall Length	3 7/8 inches
Maximum Seated Length	3 3/8 inches
Maximum Diameter	1 5/16
Bulb	T - 9
Base	8 pin Octal
Cap	Small
Mounting Position	Any

BASING:-

Pin 1 - Shield	Pin 5 - Grid
Pin 2 - Heater	Pin 6 - NC
Pin 3 - NC	Pin 7 - Heater
Pin 4 - NC	Pin 8 - Cathode

Top Cap - Plate

TYPICAL OPERATION - SHUNT REGULATORS

Series Resistance	0.5	meg.
Unregulated Input Voltage	5.4	kv.
Regulated Output Voltage	4.0	kv.
Cathode Voltage	210	Volts
Plate Current	0.9	ma.
Load Current	0.6	ma.

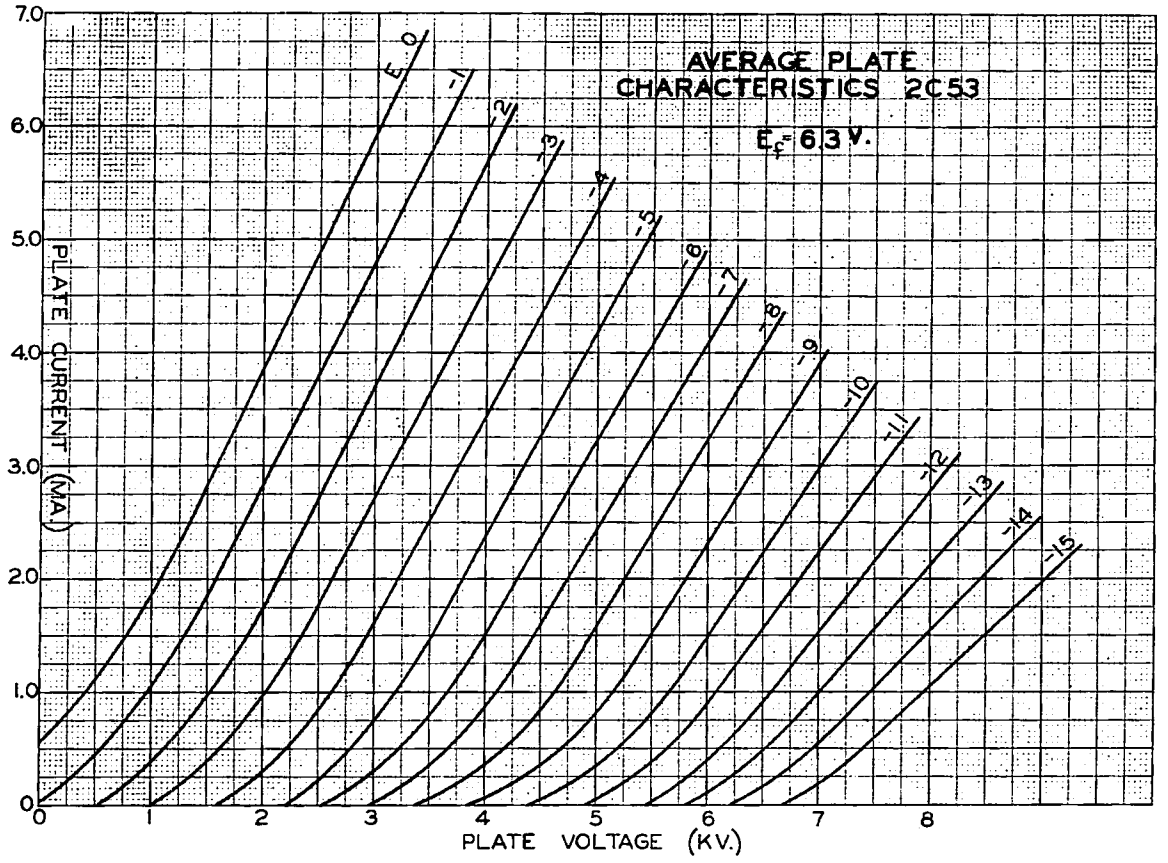
October 25, 1946

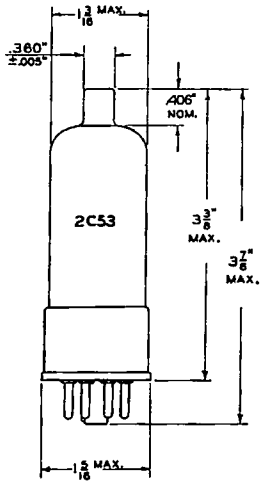
Prepared by

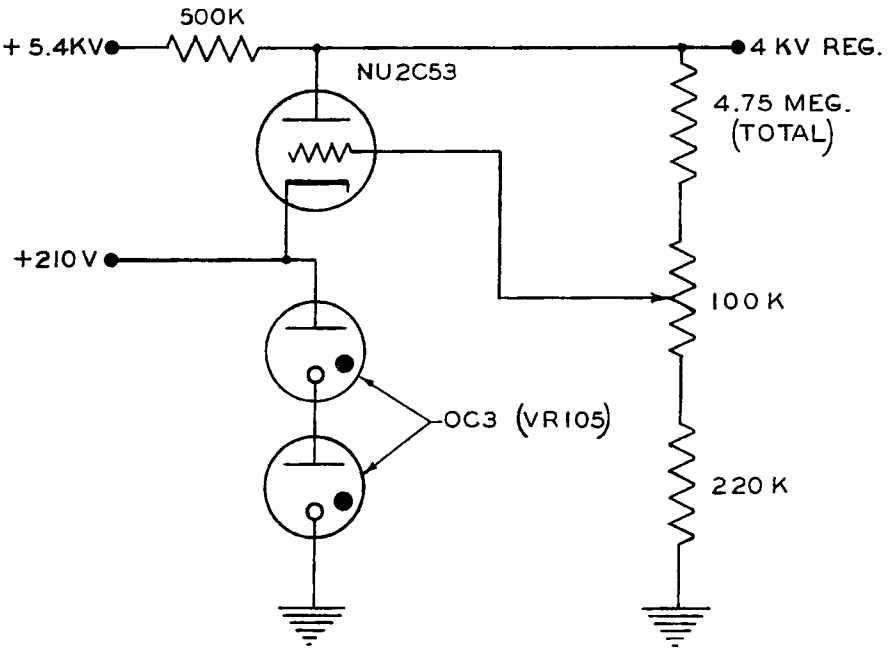
Commercial Engineering Division

NEWARK NATIONAL UNION RADIO CORPORATION NEW JERSEY

(See Reverse)







TYPICAL REGULATOR CIRCUIT