



ELECTRONIC TUBE REFERENCE

2C53

Triode - HV Shunt Regulator electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

National Union 2C53 very-high-mu indirectly heated high-voltage shunt-regulator triode for stabilized power supplies, with 8 kV maximum plate voltage and amplification factor 500.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	525000 Ω
TRANSCONDUCTANCE	0.00095 S
AMPLIFICATION FACTOR	500
MAXIMUM PLATE VOLTAGE	8000 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM CATHODE CURRENT	5 mA
National Union 2C53 high-voltage shunt-regulator triode, RMA 1946. Max plate 8000 V, plate dissipation 12 W, average plate current max 5 mA, peak plate current max 100 mA, grid voltage negative limit -200 V, heater-cathode ± 300 V. Mu 500, rp 525000 Ω at plate 4000 V, gm 0.00095 A/V at grid -5 V. Interelectrode Cgp 0.62 pF, Cgk 5.20 pF, Cpk 2.30 pF. Typical shunt regulator with 5.4 kV input, 0.5 MΩ series resistor, 4 kV output, cathode 210 V, tube plate current 0.9 mA and load current 0.6 mA. 6.3 V 0.30 A indirectly heated cathode, octal base, plate top cap.	

Very-high-mu triode amplifier for regulated high-voltage supplies and voltage amplifiers.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 National Union

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1938 NATIONAL UNION

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The	2 in	Published source value; see source line context.
supplies or voltage amplifiers operating at plate potentials between	1 kv	Published source value; see source line context.
Heater Voltage	6.3 Volts	Published source value; see source line context.
Ancde Voltage	8000 Volts	Published source value; see source line context.
Plate Current (Peak)	100 ma	Published source value; see source line context.
Grid Voltage	-200 Volts	Published source value; see source line context.
Plate Dissipation	12 Watts	Published source value; see source line context.
Heater cathade voltage \$	300 Volts	Published source value; see source line context.
Voltage	-6.3 Volts	Published source value; see source line context.
Maximum Overall Length	3 inches	Published source value; see source line context.
Maximum Seated Length	3 inches	Published source value; see source line context.
Regulated Output Veltage	4 kv	Published source value; see source line context.
Cathode Voltage	210 Volts	Published source value; see source line context.
+	5.4 KV	Published source value; see source line context.
Y	1 MEG	Published source value; see source line context.

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current (Average)	5 ma	Published source value; see source line context.
Current	30 Amps	Published source value; see source line context.
Plate Resistance @ Eb =	4 kv	Published source value; see source line context.
Grid to Plate	62 uuf	Published source value; see source line context.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to Plate	2.3 uuf	Published source value; see source line context.
Load Current	0.6 ma	Published source value; see source line context.