

ELECTRONIC TUBE REFERENCE

QS833

Voltage Regulator electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
VOLTAGEREGULATOR

High-stability miniature voltage-reference tube providing approximately 83 V for precision circuits and cascaded stabilizer arrangements.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect; cold cathode	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Voltage Regulator	
REGULATOR VOLTAGE	83 V
MINIMUM REGULATOR CURRENT	1 mA
MAXIMUM REGULATOR CURRENT	5 mA
STARTING VOLTAGE	125 V
MAINTAINING VOLTAGE	83 V
DYNAMIC IMPEDANCE	150 Ω
Published maximum ratings and characteristics audited; remaining useful numerical data retained in parameter table.	

A high-stability miniature gas-filled voltage stabilizer providing approximately 83 V regulated output for precision reference and stabilized supply service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1955 Marconi

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

1955 MARCONI

Section 1 · Voltage Regulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VOLTAGE STABILISER QS8 [1]	3 V	VOLTAGE STABILISER QS83/3
VOLTAGE STABILISER QS8 [2]	3 V	VOLTAGE STABILISER QS83/3
HIGH STABILITY - SINGLE GAP APRIL,	1955	HIGH STABILITY - SINGLE GAP APRIL, 1955
Stability _t < (Any subsequent [1])	100	Stability _t < (Any subsequent 100 hrs.) + 0-1 %
Stability _t < (Any subsequent [2])	0	Stability _t < (Any subsequent 100 hrs.) + 0-1 %
Stability _t < (Any subsequent [3])	-1	Stability _t < (Any subsequent 100 hrs.) + 0-1 %
* Half arithmetic sum of change in voltage [1]	2 V	* Half arithmetic sum of change in voltage 2---3 mA 4-change in voltage 3—4 mA.
* Half arithmetic sum of change in voltage [2]	-3 V	* Half arithmetic sum of change in voltage 2---3 mA 4-change in voltage 3—4 mA.
* Half arithmetic sum of change in voltage [3]	4 V	* Half arithmetic sum of change in voltage 2---3 mA 4-change in voltage 3—4 mA.
* Half arithmetic sum of change in voltage [4]	3 V	* Half arithmetic sum of change in voltage 2---3 mA 4-change in voltage 3—4 mA.
* Half arithmetic sum of change in voltage [5]	-4 V	* Half arithmetic sum of change in voltage 2---3 mA 4-change in voltage 3—4 mA.
t Maximum variation of voltage at constant current (preferably	3 V	t Maximum variation of voltage at constant current (preferably 3 mA).
In order to obtain maximum stability (less than [1])	0 V	In order to obtain maximum stability (less than 0-1%, change in voltage over long
In order to obtain maximum stability (less than [2])	-1 V	In order to obtain maximum stability (less than 0-1%, change in voltage over long

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
connecting a suitable stabiliser in cascade with the QS8 [1]	3	connecting a suitable stabiliser in cascade with the QS83/3.
connecting a suitable stabiliser in cascade with the QS8 [2]	3	connecting a suitable stabiliser in cascade with the QS83/3.
The circuits shown in Figs [1]	2 V	The circuits shown in Figs. 2 and 3 are recommended when a very stable voltage
The circuits shown in Figs [2]	3 V	The circuits shown in Figs. 2 and 3 are recommended when a very stable voltage
of approximately	83 mA	of approximately 83V is required ; the load should draw a constant current, which may
zero to	3 V	zero to 3 mA, and the permissible changes in input voltage V _I are also given, together
If a different voltage, or a current greater than	3 V	If a different voltage, or a current greater than 3mA is required, it is necessary
using a QS8 [1]	3 V	using a QS83/3 as the voltage reference source for the network.
using a QS8 [2]	3 V	using a QS83/3 as the voltage reference source for the network.
Stabilized voltage	83 V	Published regulated voltage.
Tube current minimum	1 mA	Minimum maintaining current.
Tube current maximum	5 mA	Maximum operating current.
Ignition voltage	125 V	Published minimum or maximum ignition/start voltage as applicable.

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker