

E2V Technologies

FX227 (Service Type CV372)

Hydrogen Thyatron

The data to be read in conjunction with the Hydrogen Thyatron Preamble.

ABRIDGED DATA

Hydrogen-filled triode thyatron, positive grid, for pulse operation. A hydrogen reservoir is incorporated.

Peak forward anode voltage	3.0	kV max
Peak anode current	40	A max
Average anode current	50	mA max
Anode heating factor	0.36×10^9	VApps max
Peak output power	60	kW max

GENERAL

Electrical

Cathode (connected internally to one end of heater)	oxide coated
Heater voltage	6.3 $\begin{matrix} + 5\% \\ - 10\% \end{matrix}$ V
Heater current	2.7 A
Tube heating time (minimum)	2.0 min

Mechanical

Overall length	127.0 mm (5.000 inches) max
Overall diameter	38.9 mm (1.532 inches) nom
Net weight	60 g (2 ounces) approx
Mounting position (see note 1)	any
Base	medium UX4
Top cap	BS 448-CT2

Cooling natural

PULSE MODULATOR SERVICE MAXIMUM AND MINIMUM RATINGS (Absolute values)

	Min	Max
Anode		
Peak forward anode voltage (see note 2)	-	3.0 kV
Peak inverse anode voltage (see note 3)	-	3.0 kV
Peak anode current	-	40 A
Average anode current	-	50 mA
Rate of rise of anode current (see note 4)	-	750 A/ μ s
Anode heating factor	-	0.36×10^9 VApps

Grid

Unloaded grid drive pulse voltage (see note 5)	175	-	V
Grid pulse duration	2.0	-	μ s
Rate of rise of grid pulse (see note 4)	160	-	V/ μ s
Peak inverse grid voltage	-	200	V
Loaded grid bias voltage	0	-120	V
Forward impedance of grid drive circuit	-	1500	Ω

Cathode

	Min	Max
Heater voltage	6.3 $\begin{matrix} + 5\% \\ - 10\% \end{matrix}$	V
Tube heating time	2.0	- min

Environmental

Ambient temperature	-50	+90	$^{\circ}$ C
Altitude	-	3	km
	-	10 000	ft

