

# HVM25

## Variable Capacitance Diode for FM tuner

# HITACHI

Preliminary  
Rev. 2  
May. 1993

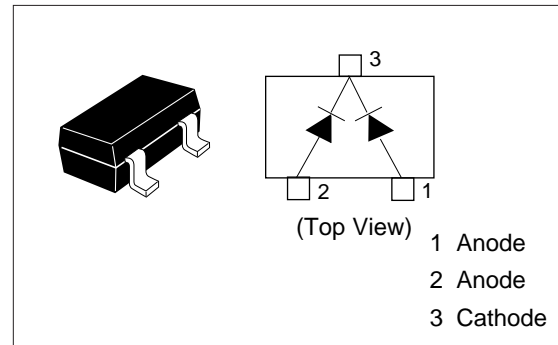
### Features

- Good linearity of C-V curve.
- To be usable at low voltage.
- High figure of merit. (Q=60 min)
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVM25	T 8	MPAK

### Pin Arrangement



### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	16	V
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

### Electrical Characteristics (Ta = 25°C)

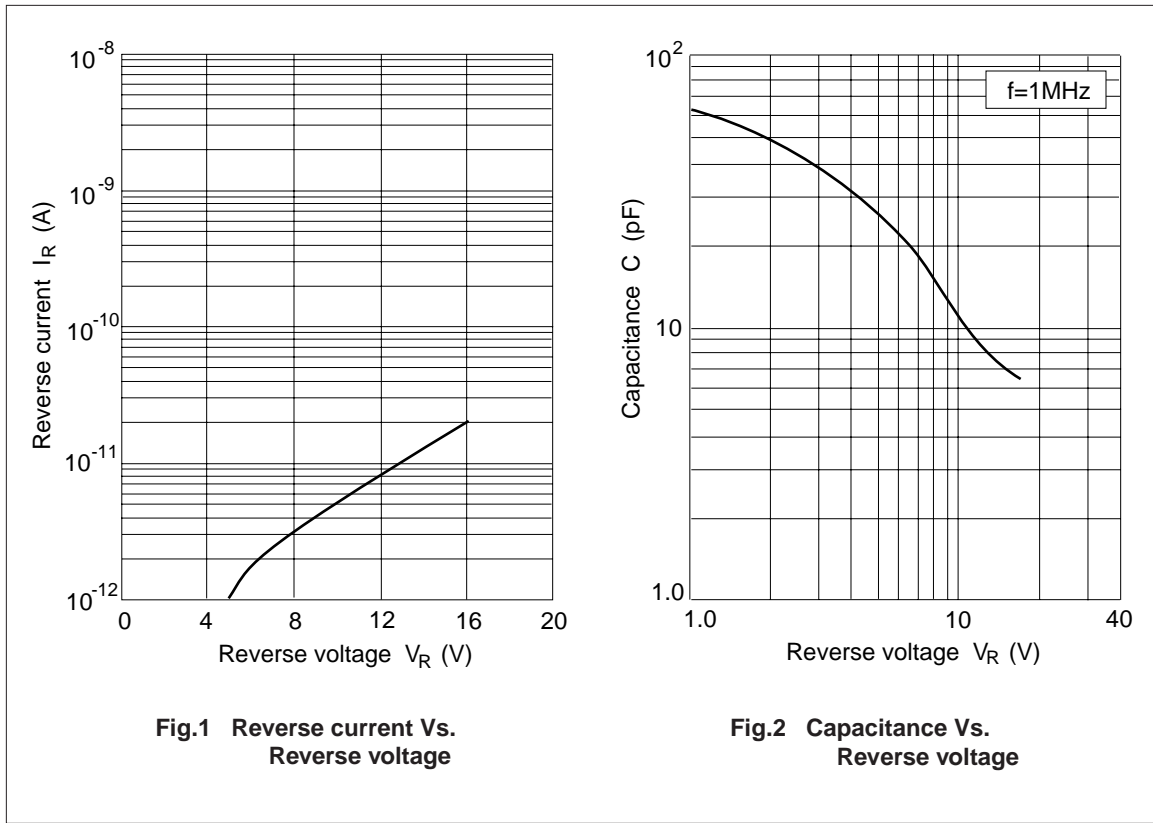
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V <sub>R</sub>	16	—	—	V	I <sub>R</sub> = 10 μA
Reverse current	I <sub>R</sub>	—	—	50	nA	V <sub>R</sub> = 10 V
Capacitance	C <sub>3</sub>	36.0	—	45.0	pF	V <sub>R</sub> = 3 V, f = 1 MHz
	C <sub>8</sub>	12.0	—	17.0		V <sub>R</sub> = 8 V, f = 1 MHz
Capacitance ratio	n	2.5	—	—	—	C <sub>3</sub> / C <sub>8</sub>
Figure of merit	Q	60	—	—	—	V <sub>R</sub> = 3 V, f = 100 MHz
Matching error	ΔC/C*	—	—	3.0	%	V <sub>R</sub> = 3~8V

\* A set of HVM25 is of uniform C-V characteristics.

Measure max. value and min. value of capacitance at each bias point of V<sub>R</sub>=3V through 8V.

Calculate Matching Error,  $\Delta C/C = \frac{(C_{max} - C_{min})}{C_{min}} \times 100 (\%)$

\*\* Each group shall uniform a multiple of 3 diodes.



**Package Dimensions**

Unit: mm

