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# HVM17WA

Variable Capacitance Diode for VCO

## HITACHI

ADE-208-246 (Z)

Rev. 0

May. 1994

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### Features

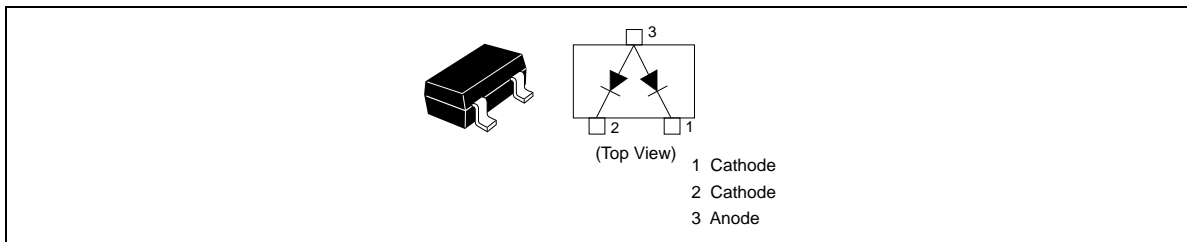
- Good linearity of C-V curve.
- To be usable at low voltage.
- High figure of merit. (Q = 50min)
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVM17WA	T11	MPAK

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### Pin Arrangement



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

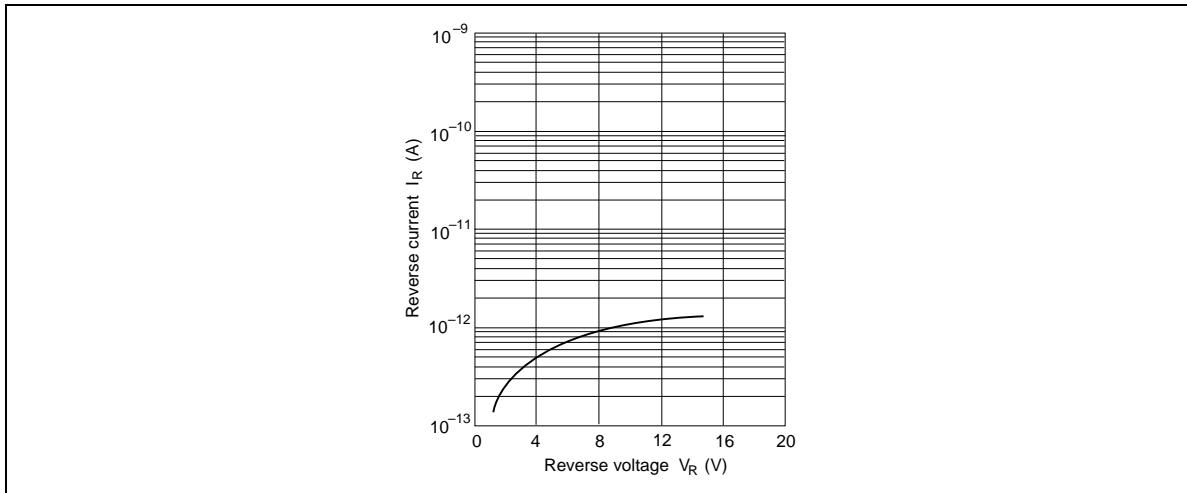
Item	Symbol	Value	Unit
Reverse voltage	$V_R$	15	V
Junction temperature	$T_j$	125	°C
Storage temperature	$T_{stg}$	-55 to +125	°C

# HVM17WA

## Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	$V_R$	15	—	—	V	$I_R = 10\mu\text{A}$
Reverse current	$I_R$	—	—	100	nA	$V_R = 9\text{V}$
Capacitance	$C_1$	50.0	—	85.0	pF	$V_R = 1\text{V}, f = 1\text{MHz}$
	$C_3$	16.1	—	27.3		$V_R = 3\text{V}, f = 1\text{MHz}$
	$C_{4.5}$	5.23	—	8.84		$V_R = 4.5\text{V}, f = 1\text{MHz}$
Capacitance ratio	n	5.6	—	—	—	$C_1/C_{4.5}$
Figure of merit	Q	50	—	—	—	$V_R = 2.5\text{V}, f = 10\text{MHz}$
ESD-Capability	—	80	—	—	V	*1C = 200pF, Both forward and reverse direction 1 pulse.

- Notes: 1. Failure criterion;  $I_R \geq 100\text{nA}$  at  $V_R = 9\text{V}$   
 2. Peronedevice



**Fig.1 Reverse current Vs. Reverse voltage**

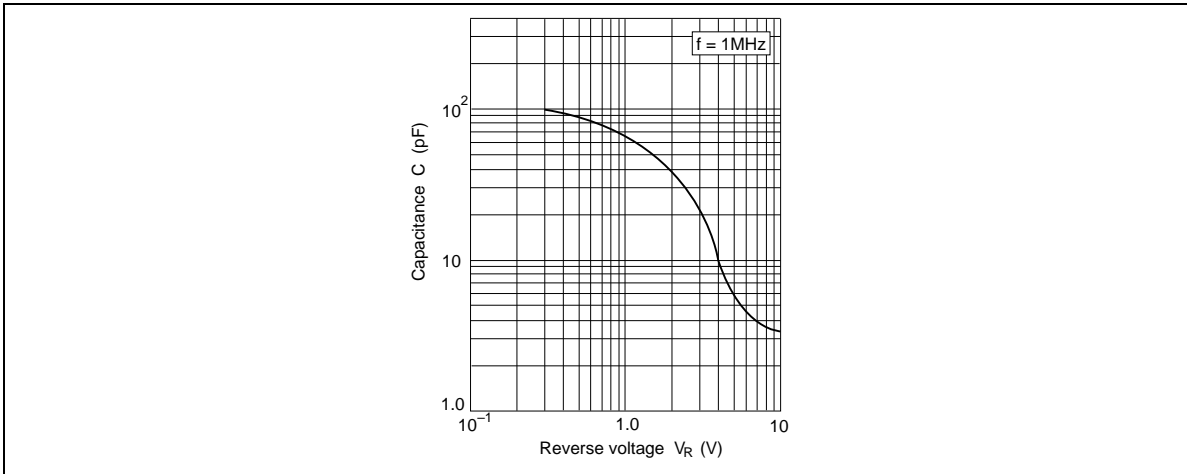


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

