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# HVM306

Silicon Epitaxial Planar Diode for Lowpass Circuit

## HITACHI

Preliminary  
Rev. 1  
Jun. 1992

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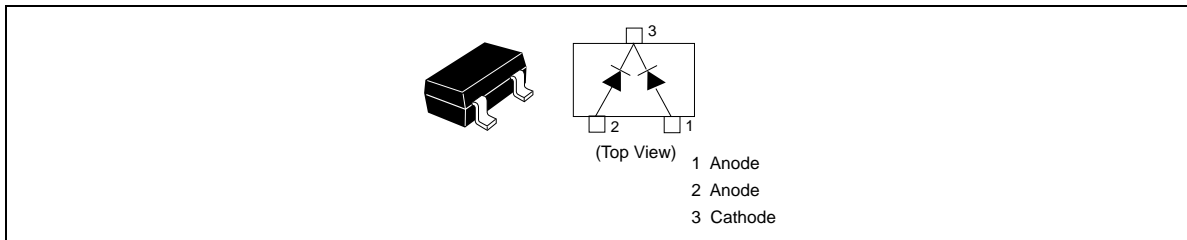
### Features

- High capacitance ratio. ( $n = 10\text{min}$ )
- Low series resistance.
- Low cost.
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HVM306	T9	MPAK

### Pin Arrangement



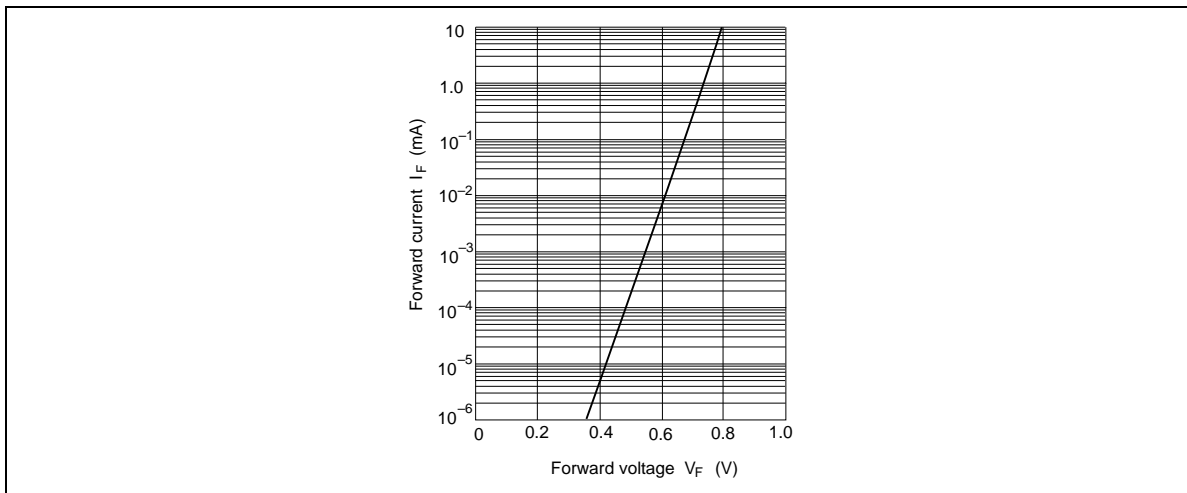
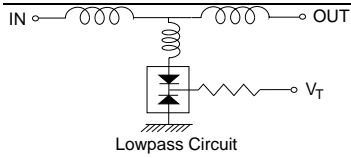
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	30	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +125	$^\circ\text{C}$

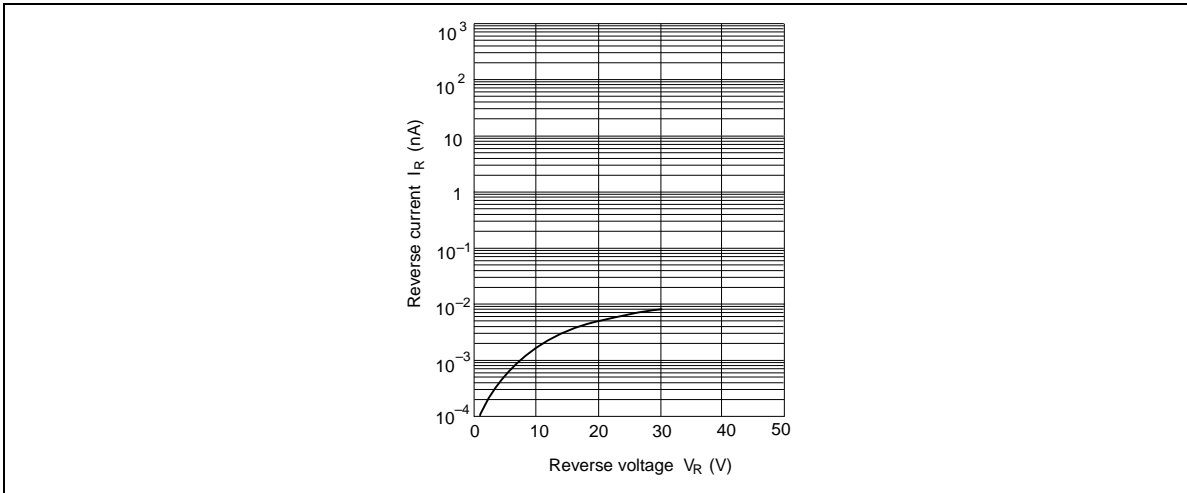
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## Electrical Characteristics (Ta = 25°C)

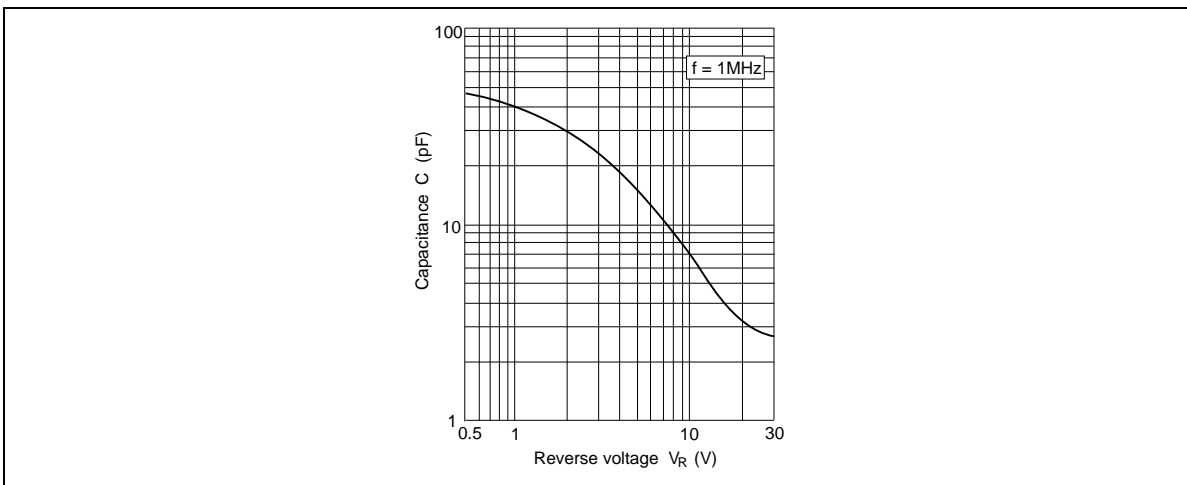
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_{R(1)}$	—	—	10	nA	$V_R = 30V$
	$I_{R(2)}$	—	—	100		$V_R = 30V, T_a = 60^\circ C$
Capacitance	$C_2$	29.4	—	34.3	pF	$V_R = 2V, f = 1MHz$
	$C_{25}$	2.67	—	3.02		$V_R = 25V, f = 1MHz$
Capacitance ratio	n	10.0	—	—	—	$C_2/C_{25}$
Series resistance	$r_s$	—	—	0.75	$\Omega$	$C = 9pF, f = 470MHz$



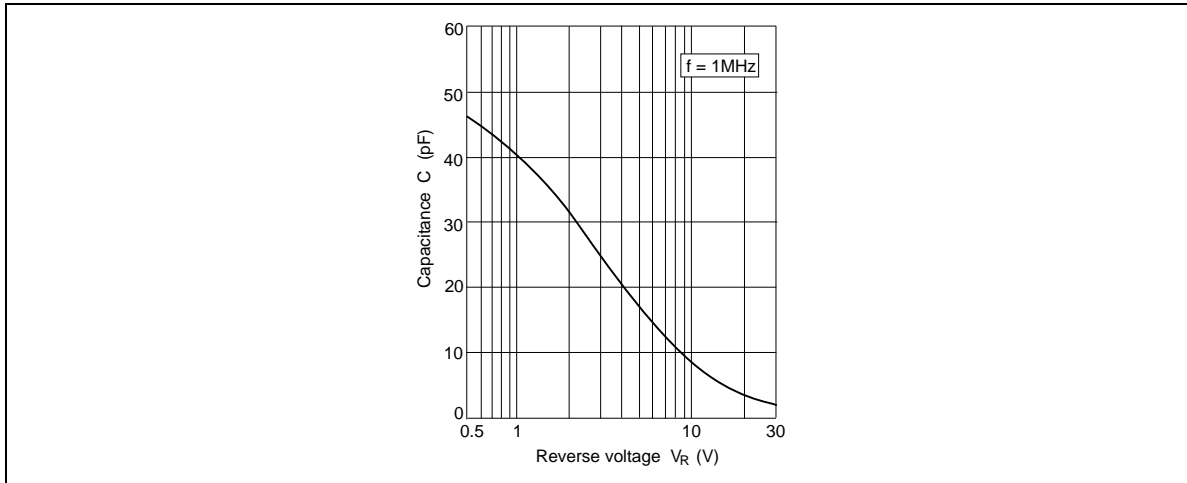
**Fig.1 Forward current Vs. Forward voltage**



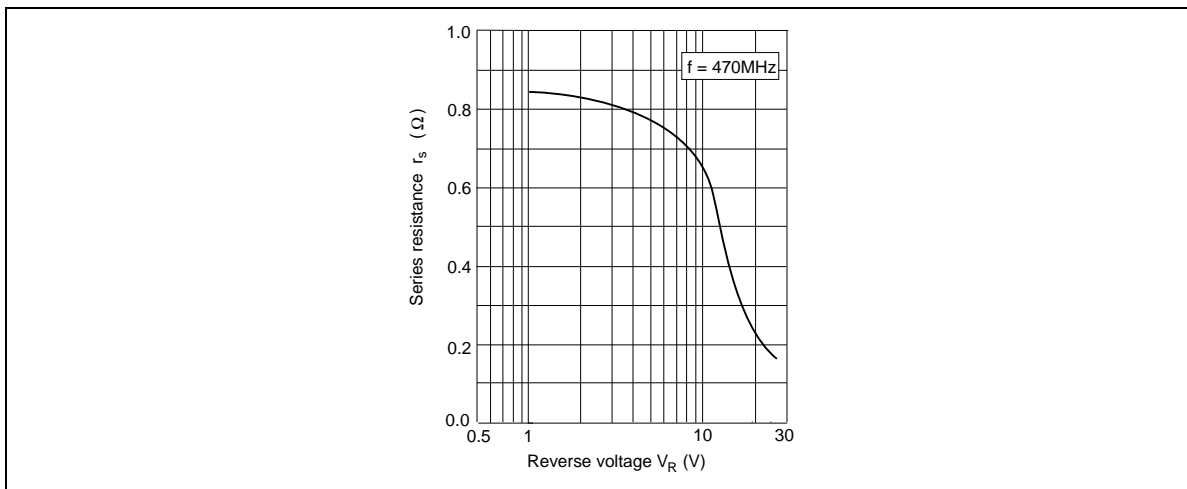
**Fig.2 Reverse current Vs. Reverse voltage**



**Fig.3 Capacitance Vs. Reverse voltage (1)**



**Fig.4 Capacitance Vs. Reverse voltage (2)**



**Fig.5 Series resistance Vs. Reverse voltage**

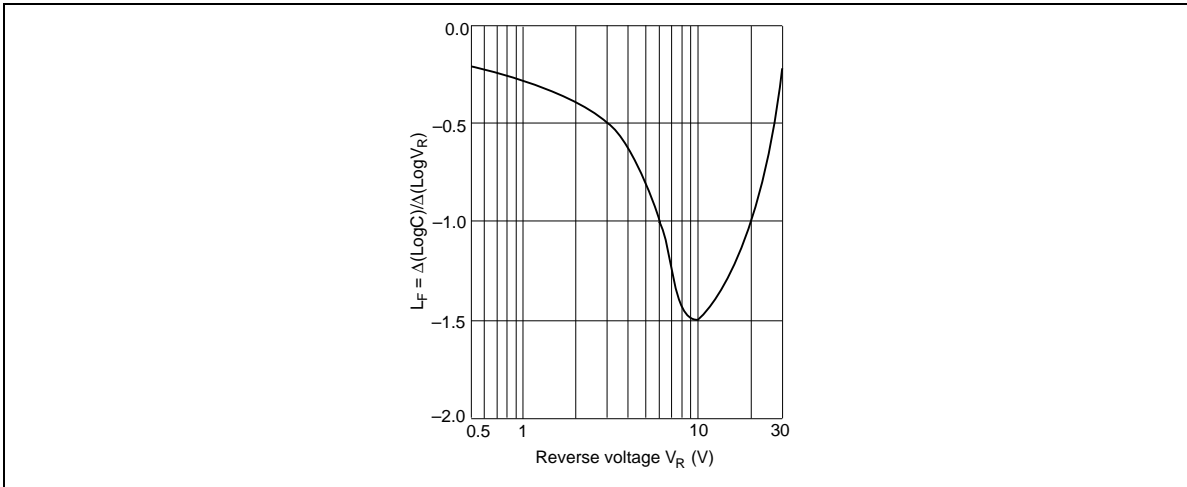


Fig.6 Linearity factor Vs. Reverse voltage

Package Dimensions

