ADE-208-174A(Z)

HVK89
Silicon Epitaxial Planar Diode for UHF/VHF TV tuner AFC

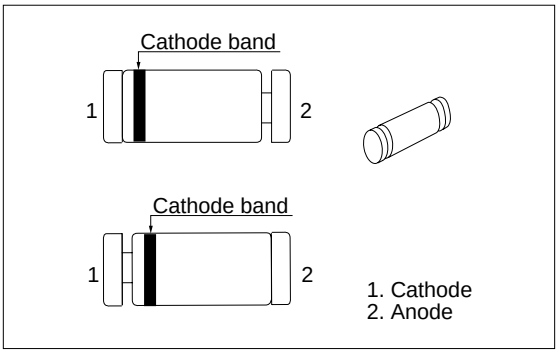
HITACHI

Rev. 1
Jun. 1994

Features

- High capacitance ratio. (n =2.5 to 3.4))
- Low series resistance. (r_s =1.3Ω max)
- LLD package is suitable for high density surface mounting and high speed assembly.

Outline



Ordering Information

Type No.	Cathode Band	Package code
HVK89	Black	LLD

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	34	V
Reverse voltage	V_R	32	V
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	I_R	—	—	10.0	nA	V_R = 25 V
Capacitance	C_2	10.5	—	16.0	pF	V_R = 2 V , f = 1 MHz
	C_{10}	3.3	—	5.7		V_R = 10 V , f = 1 MHz
Capacitance ratio	n *	2.5	—	3.4	—	C_2/C_{10}
Series resistance	r_s	—	—	1.3	Ω	C = 12.5 pF , f = 50 MHz

* The HVK89 is grouped by n as follows.
HVK89A : n= 2.5 to 3.0
HVK89B : n= 2.8 to 3.4

HVK89

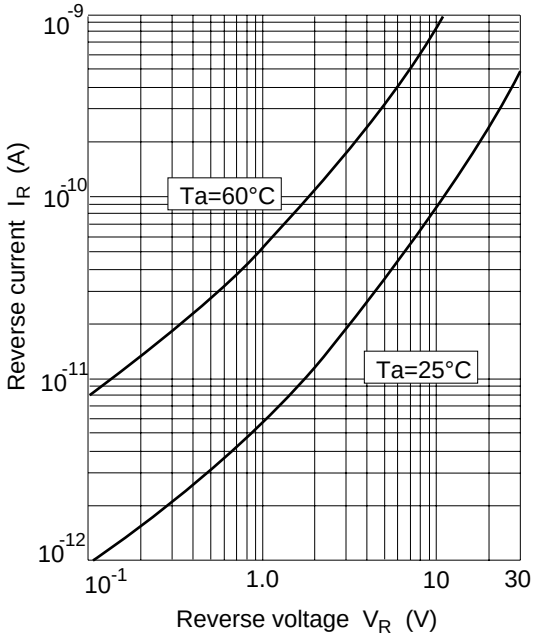


Fig.1 Reverse current Vs. Reverse voltage

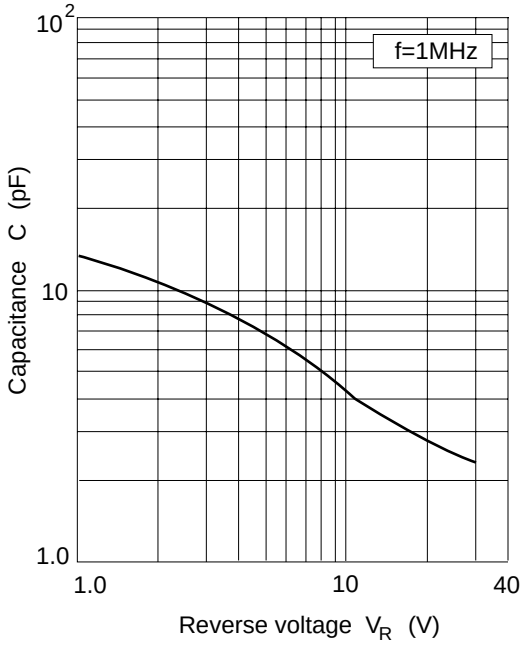
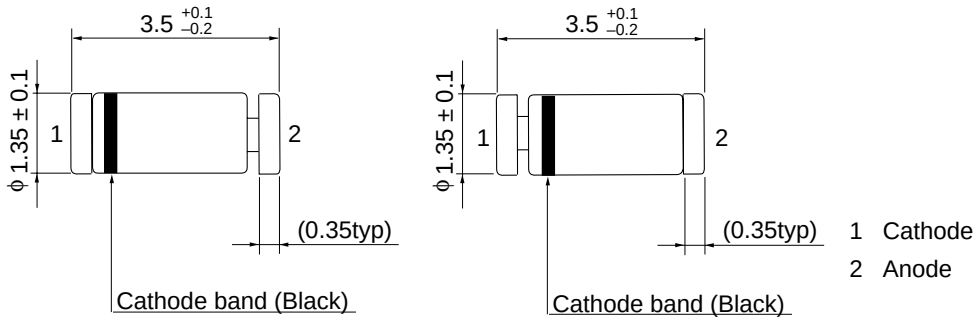


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



( ) : Reference only

HITACHI Code	LLD
JEDEC Code	—
EIAJ Code	—
Weight (g)	0.027

ADE-208-081A(Z)

HVM11
Variable Capacitance Diode for BS/CS tuner

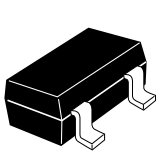
HITACHI

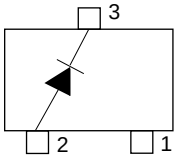
Preliminary
Rev. 1
May. 1993

Features

- Low capacitance, high S/N.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Pin Arrangement





(Top View)

1 NC
2 Anode
3 Cathode

Ordering Information

Type No.	Laser Mark	Package Code
HVM11	T 4	MPAK

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	35	V
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V_R	35	—	—	V	I_R = 10 µA
Reverse current	I_R	—	—	50	nA	V_R = 30 V
Capacitance	C_1	3.6	—	5.6	pF	V_R = 1 V , f = 1 MHz
	C_{30}	0.5	—	0.9		V_R = 30 V , f = 1 MHz
Capacitance ratio	n	4.0	—	—	—	C_1/C_{30}
Series resistance	r_s	—	—	1.5	Ω	V_R = 2 V , f = 100 MHz

HVM11

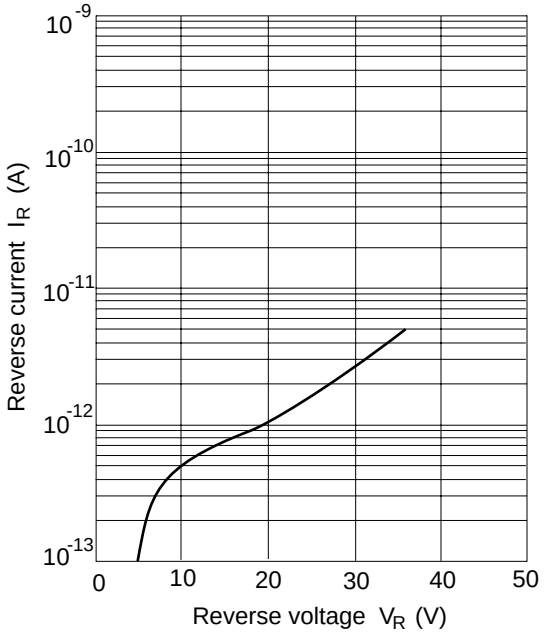


Fig.1 Reverse current Vs. Reverse voltage

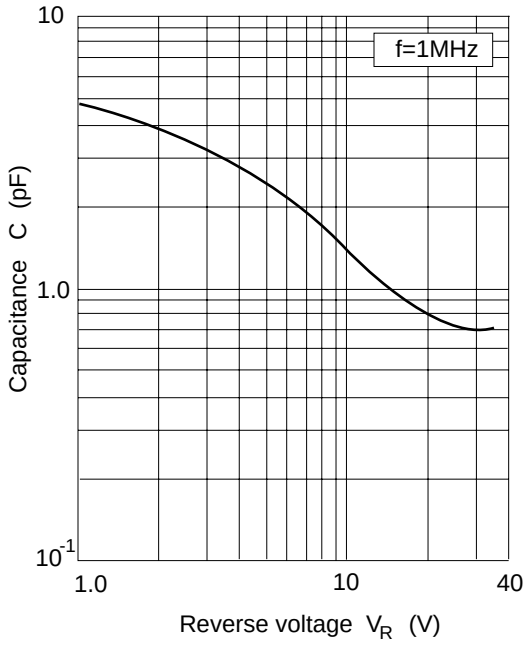
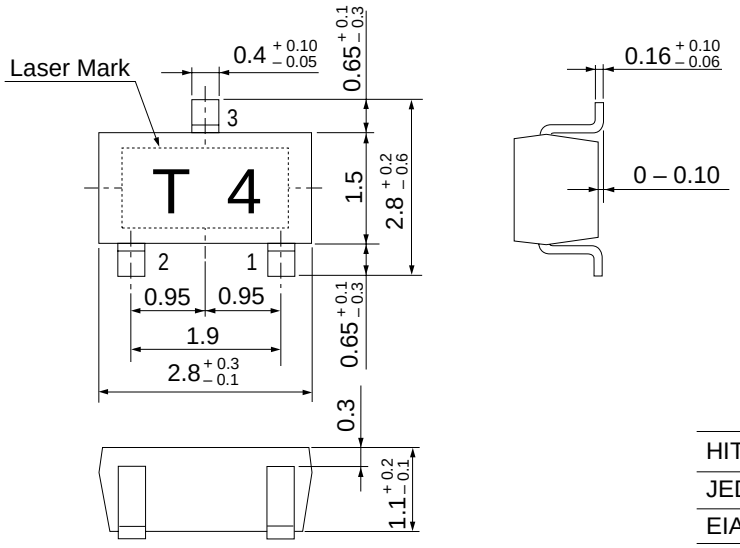


Fig.2 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



1 NC
2 Anode
3 Cathode

HITACHI Code	MPAK(1)
JEDEC Code	—
EIAJ Code	SC-59A
Weight (g)	0.011