

# HSM83

## Silicon Epitaxial Planar Diode for High Voltage Switching

# HITACHI

Rev. 3  
Aug. 1995

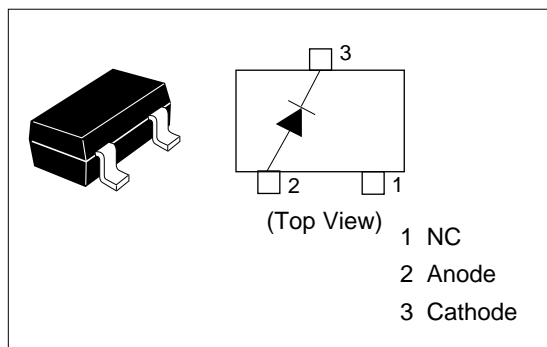
### Features

- High reverse voltage. ( $V_R=250V$ )
- MPAK package is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Package Code
HSM83	F 7	MPAK

### Pin Arrangement



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

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	300	V
Reverse voltage	$V_R$	250	V
Peak forward current	$I_{FM}$	300	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	2	A
Average forward current	$I_o$	100	mA
Junction temperature	$T_j$	125	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ C$

\* Within 10ms forward surge current.

### Electrical Characteristics ( $T_a = 25^\circ C$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	1.2	V	$I_F = 100\text{ mA}$
Reverse current	$I_{R1}$	—	—	0.2	$\mu A$	$V_R = 250\text{ V}$
	$I_{R2}$	—	—	100		$V_R = 300\text{ V}$
Capacitance	C	—	1.5	3.0	pF	$V_R = 0\text{ V}, f = 1\text{ MHz}$
Reverse recovery time	$t_{rr}$	—	—	100	ns	$I_F=I_R=30\text{ mA}, I_{rr}=3\text{ mA}, R_L=100\Omega$

HSM83

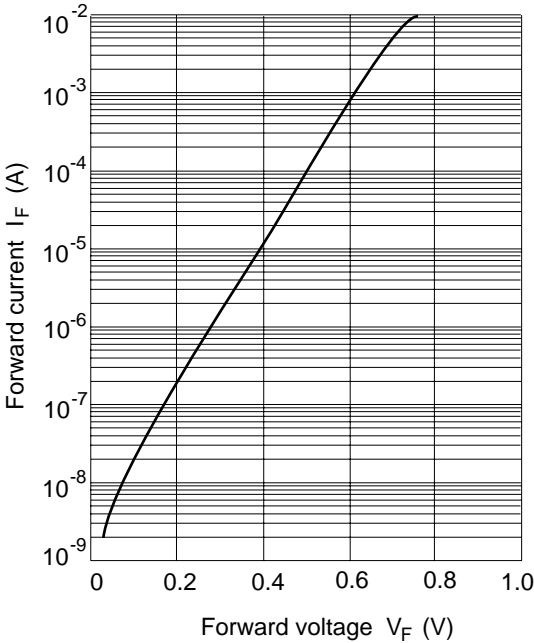


Fig.1 Forward current Vs. Forward voltage

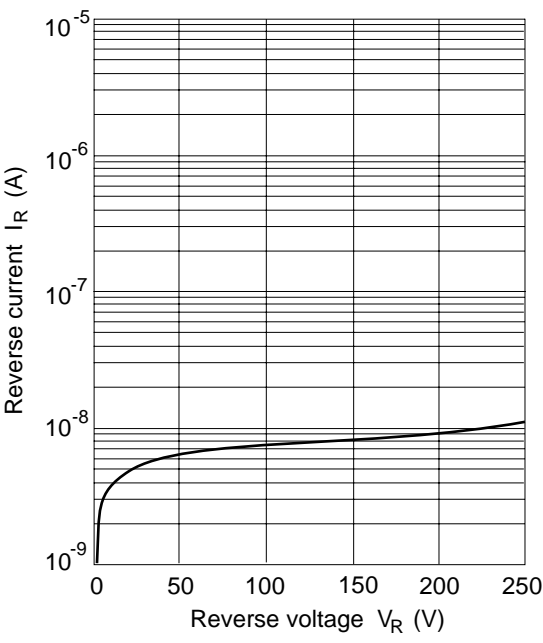


Fig.2 Reverse current Vs. Reverse voltage

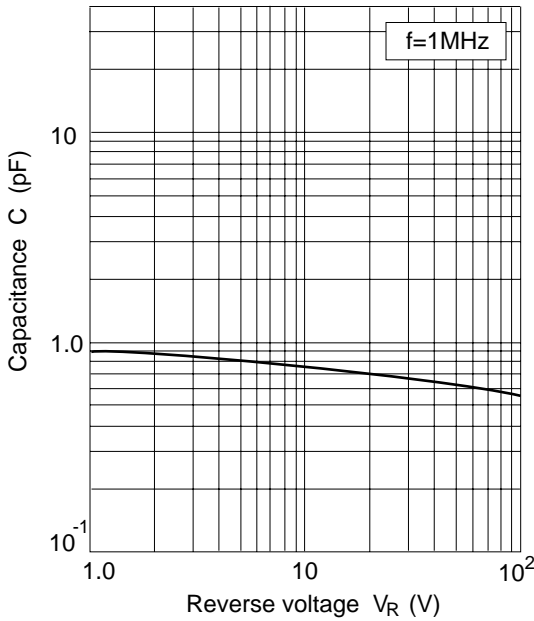


Fig.3 Capacitance Vs. Reverse voltage

### Package Dimensions

Unit: mm

