# HSK83

# Silicon Epitaxial Planar Diode for High Voltage Switching

# **HITACHI**

ADE-208-169C(Z)

Rev. 3 Dec. 1998

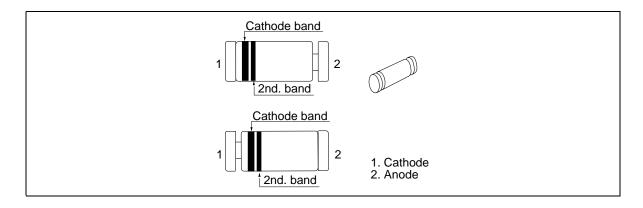
#### **Features**

- High reverse voltage. (V<sub>R</sub>=250V)
- LLD package is suitable for high density surface mounting and high speed assembly

### **Ordering Information**

Type No.	Cathode band	2nd band	Package Code
HSK83	White	Verdure	LLD

### **Outline**





## HSK83

## **Absolute Maximum Ratings**

 $(Ta = 25^{\circ}C)$ 

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{_{RM}}$	300	V
Reverse voltage	V <sub>R</sub>	250	V
Peak forward current	I <sub>FM</sub>	625	mA
Non-Repetitive peak forward surge current	I *1 FSM	1	A
Average rectified current	I <sub>o</sub>	150	mA
Junction temperature	Tj	175	°C
Storage temperature	Tstg	-65 to +175	°C

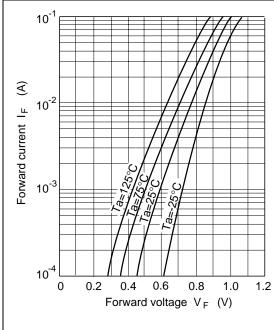
Note 1. Value at duration of 1s.

### **Electrical Characteristics**

 $(Ta = 25^{\circ}C)$ 

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Forward voltage	V <sub>F</sub>	_	_	1.0	V	I <sub>F</sub> = 100 mA
Reverse current	I <sub>R1</sub>			0.1	μΑ	V <sub>R</sub> = 250V
	I <sub>R2</sub>	_	_	100		$V_R = 300V$
Capacitance	С	_	1.5	_	pF	$V_R = 0V, f = 1 MHz$
Reverse recovery time	t <sub>rr</sub>	_	_	100	ns	$I_{F} = I_{R} = 30 \text{ mA}, I_{rr} = 3\text{mA}, R_{L} = 100\Omega$

### **Main Characteristic**



10<sup>-5</sup>

Ta=75°C

Ta=50°C

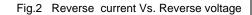
Ta=25°C

Ta=25°C

Ta=25°C

Reverse voltage V<sub>R</sub>(V)

Fig.1 Forward current Vs. Forward voltage



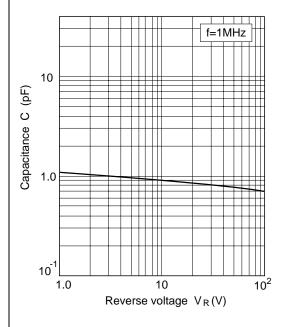
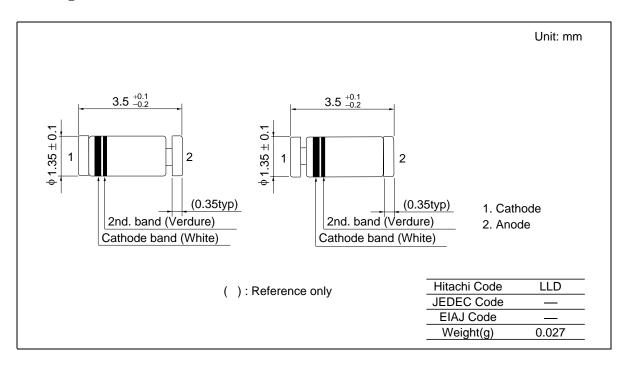


Fig.3 Capacitance Vs. Reverse voltage

## HSK83

## **Package Dimensions**



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