# Silicon Epitaxial Planar Diode for High Voltage Switching

# HITACHI

ADE-208-169B (Z) Rev. 2

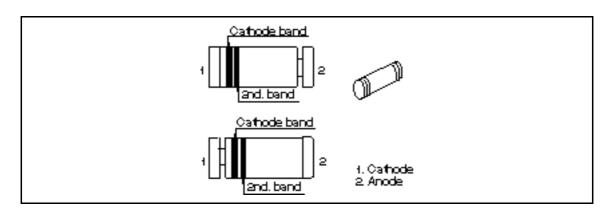
#### **Features**

- High reverse voltage.  $(V_R = 250V)$
- 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**





### **Absolute Maximum Ratings**\* $^{2}$ (Ta = 25 $^{\circ}$ C)

Item	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}^{*1}$	300	V
Reverse voltage	$V_R$	250	V
Peak forward current	I <sub>FM</sub>	625	mA
Non-Repetitive peak forward surge current	I <sub>FSM</sub> *2	1	A
Average forward current	I <sub>o</sub>	150	mA
Junction temperature	T <sub>j</sub>	175	°C
Storage temperature	T <sub>stg</sub>	-65 to +175	°C

Notes: 1. Reverse voltage in excess of peak reverse voltage may deteriorate electrical characteristic.

2. Within 1s forward surge current.

#### **Electrical Characteristics** ( $Ta = 25^{\circ}C$ )

Item	Symbol	Min	Тур	Max	Unit	Test Condition
Forward voltage	$V_{F}$	_	_	1.0	V	I <sub>F</sub> = 100mA
Reverse current	I <sub>R1</sub>	_	_	0.1	μΑ	V <sub>R</sub> = 250V
	I <sub>R2</sub>	_	_	100	<del></del>	V <sub>R</sub> = 300V
Capacitance	С	_	_	3.0	pF	$V_R = 0V, f = 1MHz$
Reverse recovery time	t <sub>rr</sub>	_	_	100	ns	$I_F = I_R = 30 \text{mA}, \text{ Irr} = 3 \text{mA}, R_L = 100$

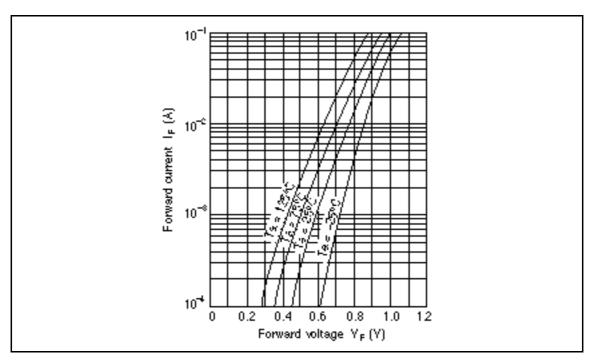


Fig.1 Forward current Vs. Forward voltage

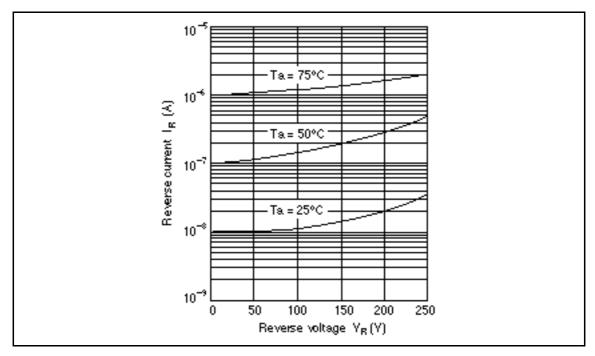


Fig.2 Reverse current Vs. Reverse voltage

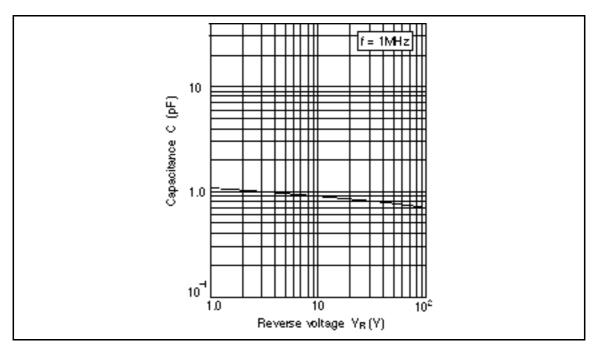


Fig.3 Capacitance Vs. Reverse voltage

### **Package Dimensions**

