

# HSU83

## Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G0189-0300  
 Rev.3.00  
 Feb 16, 2005

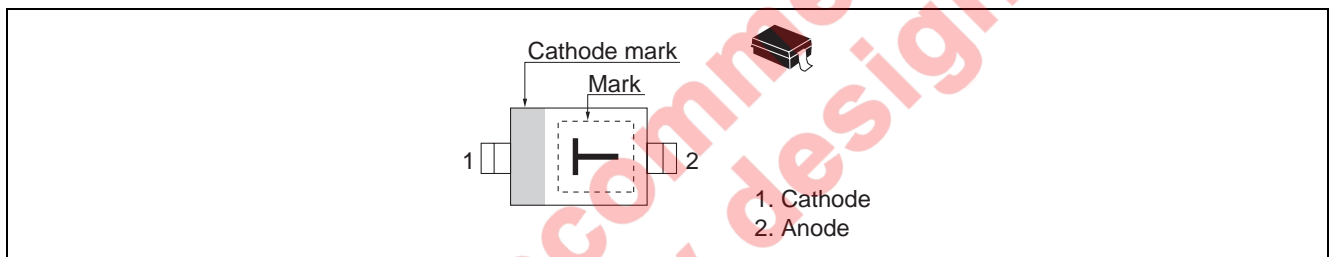
### Features

- High reverse voltage. ( $V_R = 250\text{ V}$ )
- Ultra small Resin Package (URP) is suitable for high density surface mounting and high speed assembly.

### Ordering Information

Type No.	Laser Mark	Renesas Code	Previous Code
HSU83	T	PTSP0002ZA-A	URP

### Pin Arrangement



Not recommended for new design

## Absolute Maximum Ratings

(Ta = 25°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	$I_{FSM}^{*1}$	2	A
Average rectified current	$I_o$	100	mA
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Note: 1. Value at duration of 10 ms.

## Electrical Characteristics

(Ta = 25°C)

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

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Main Characteristics

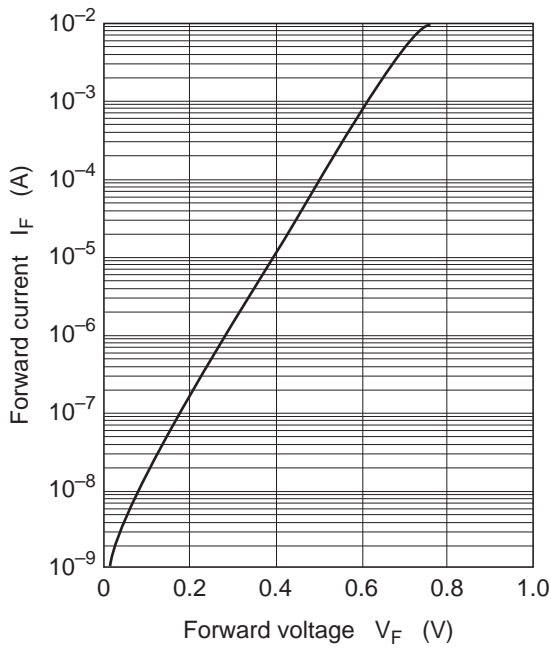


Fig.1 Forward current vs. Forward voltage

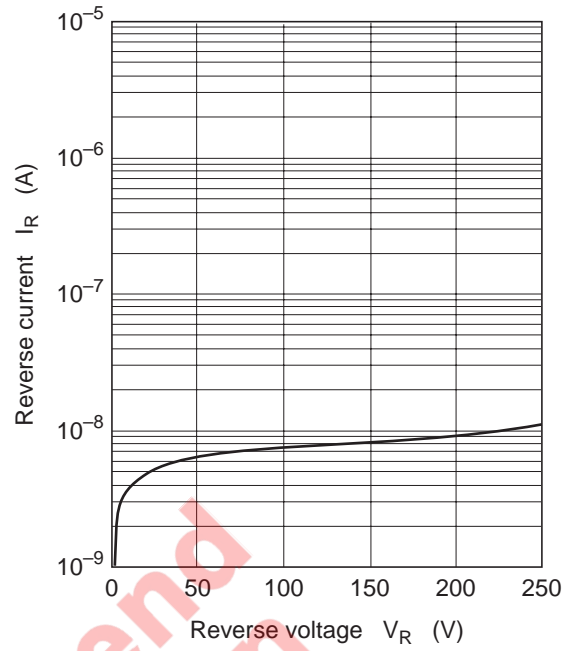


Fig.2 Reverse current vs. Reverse voltage

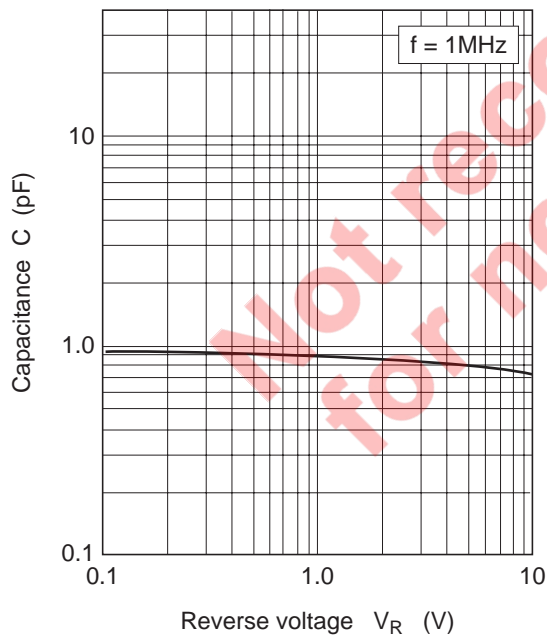
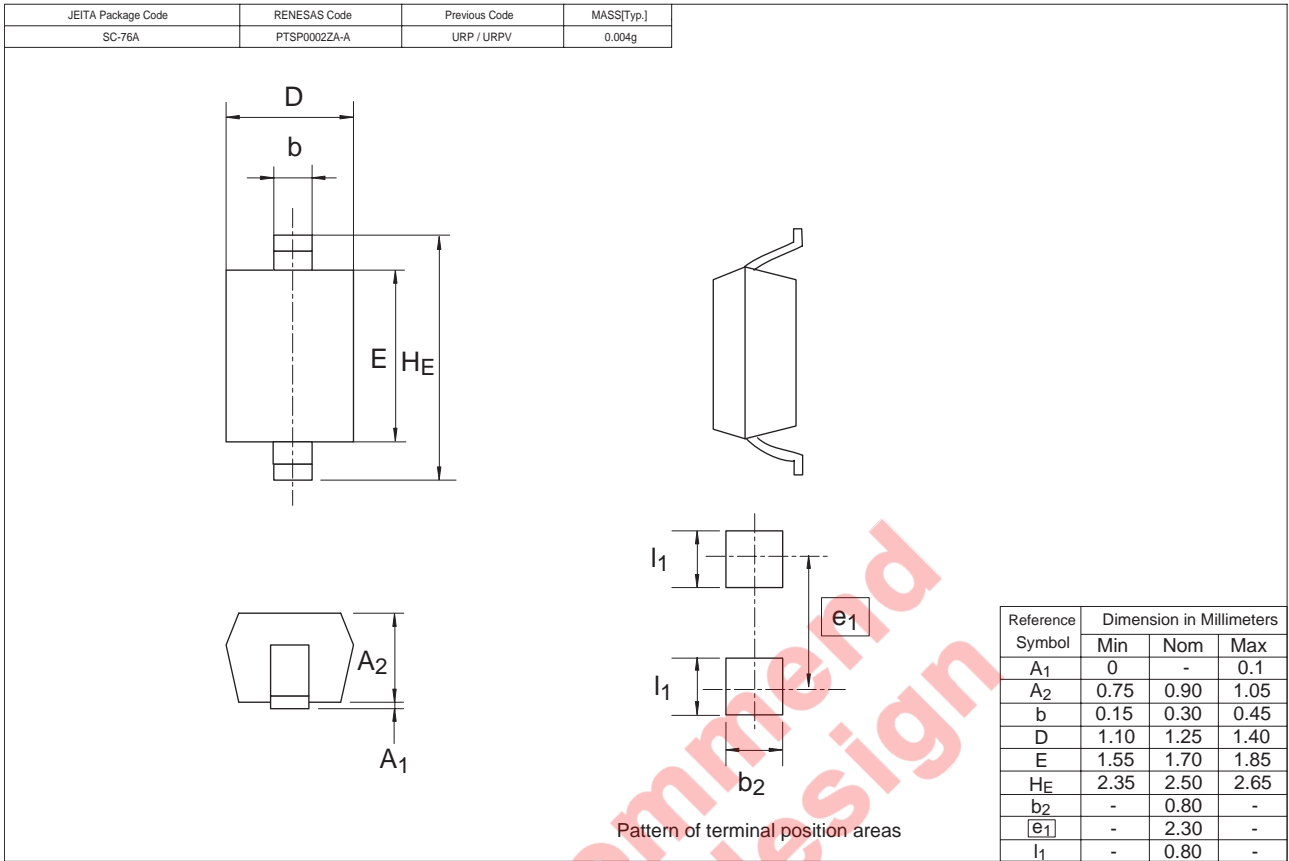


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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To our customers,

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