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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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HSC278

Silicon Schottky Barrier Diode for Detector

REJ03G0601-0300
 (Previous: ADE-208-931B)
 Rev.3.00
 Apr 13, 2005

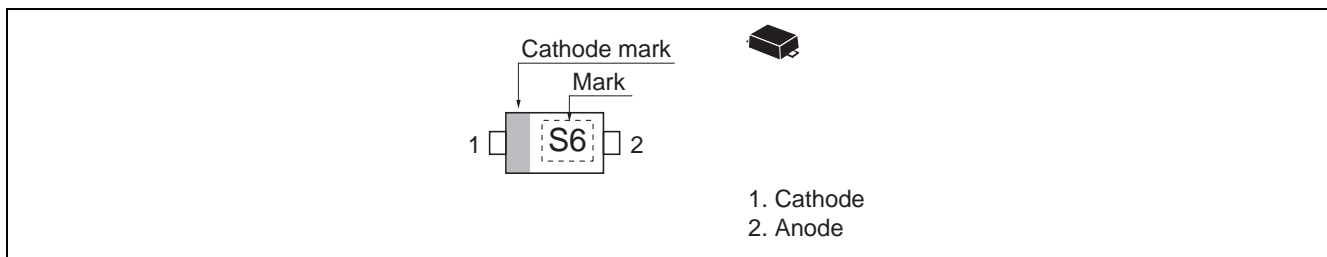
Features

- Low forward voltage, Low capacitance.
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Cathode Mark	Package Name	Package Code (Previous Code)
HSC278	S6	UFP	PWSF0002ZA-A (UFP)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Non-Repetitive peak forward surge current	I_{FSM}^*	200	mA
Peak forward current	I_{FM}	150	mA
Average rectified current	I_o	30	mA
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

Note: 10 ms sine wave 1 pulse

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.30	V	$I_F = 1 \text{ mA}$
	V_{F2}	—	—	0.95		$I_F = 30 \text{ mA}$
Reverse current	I_R	—	—	700	nA	$V_R = 10 \text{ V}$
Capacitance	C	—	—	1.5	pF	$V_R = 1 \text{ V}$, $f = 1 \text{ MHz}$
ESD-Capability *	—	100	—	—	V	$C = 200 \text{ pF}$, $R_L = 0 \Omega$, Both forward and reverse direction 1 pulse.

Note: Failure criterion ; $I_R \geq 1.4 \mu\text{A}$ at $V_R = 10 \text{ V}$

Main Characteristic

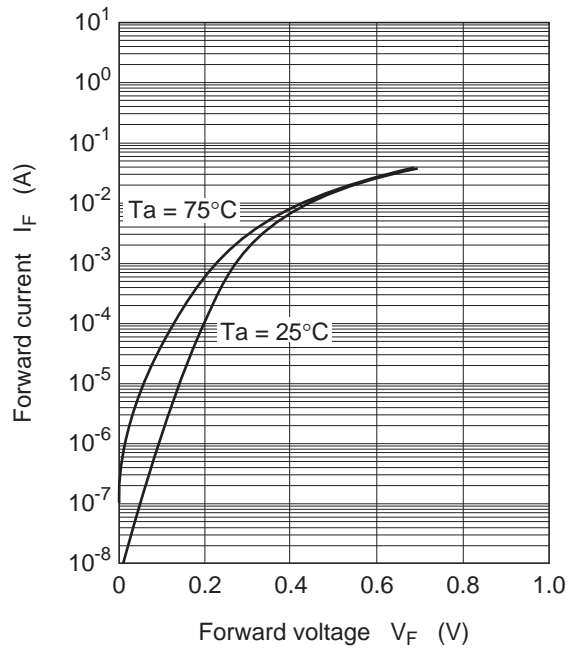


Fig.1 Forward current vs. Forward voltage

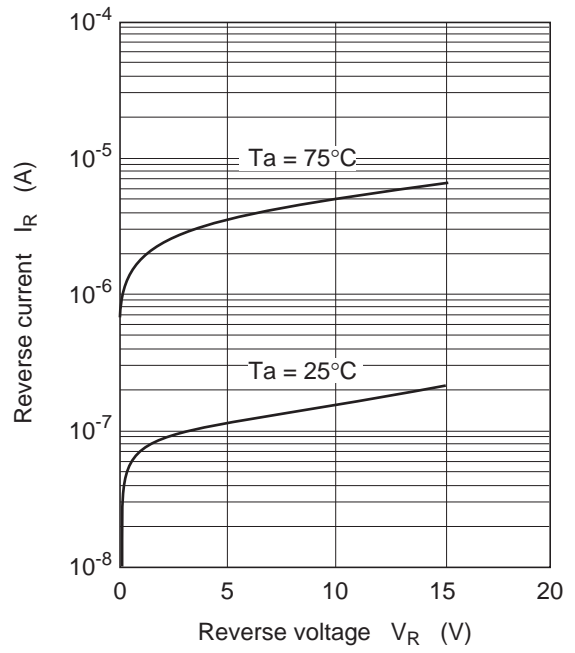


Fig.2 Reverse current vs. Reverse voltage

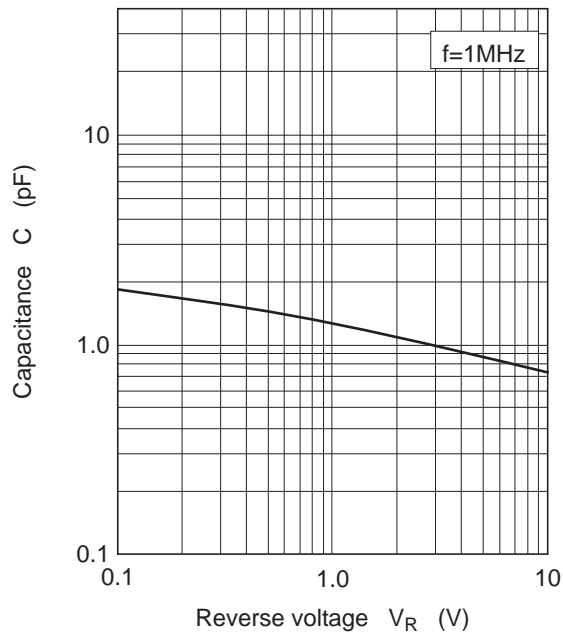
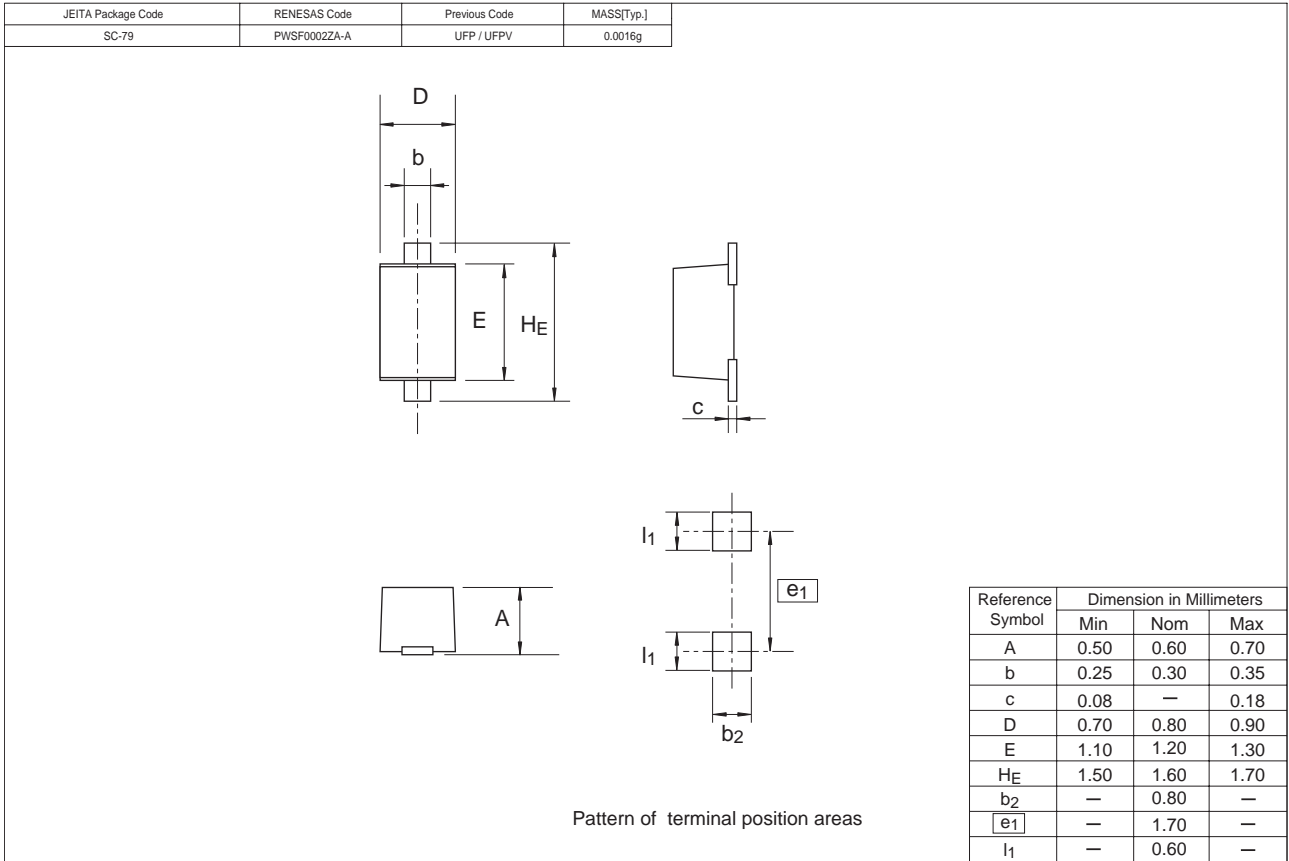


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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