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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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HSM223C

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0553-0600

Rev.6.00

Dec 12, 2008

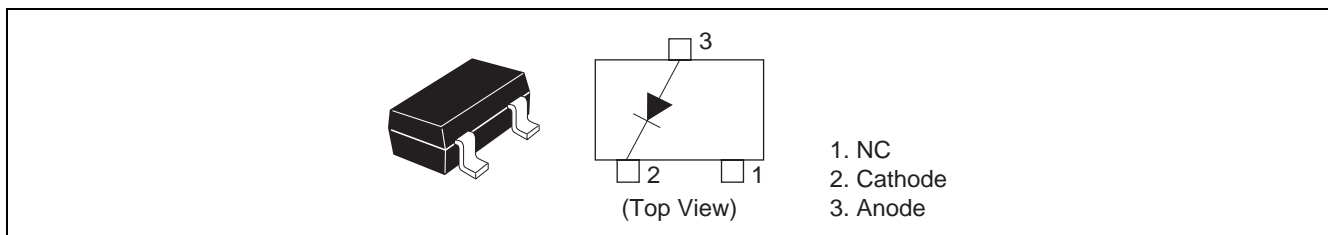
Features

- Low capacitance, proof against high voltage.
- Fast recovery time. (trr = 3.0ns max)
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Part No	Laser Mark	Package Name	Package Code	Taping Abbreviation (Quantity)
HSM223CTL	A8	MPAK	PLSP0003ZC-A	TL (3,000 pcs / reel)
HSM223CTR	A8	MPAK	PLSP0003ZC-A	TR (3,000 pcs / reel)

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Peak forward current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*1}	4	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 1 μ s.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	0.76	1.0	V	$I_F = 10$ mA
	V_F	—	0.88	1.0	V	$I_F = 50$ mA
	V_F	—	0.97	1.2	V	$I_F = 100$ mA
Reverse current	I_R	—	—	0.1	μ A	$V_R = 80$ V
Capacitance	C	—	0.5	2.0	pF	$V_R = 0$ V, $f = 1$ MHz
Reverse recovery time	t_{rr}	—	—	3.0	ns	$I_F = 10$ mA, $V_R = 6$ V, $R_L = 50$ Ω

Main Characteristics

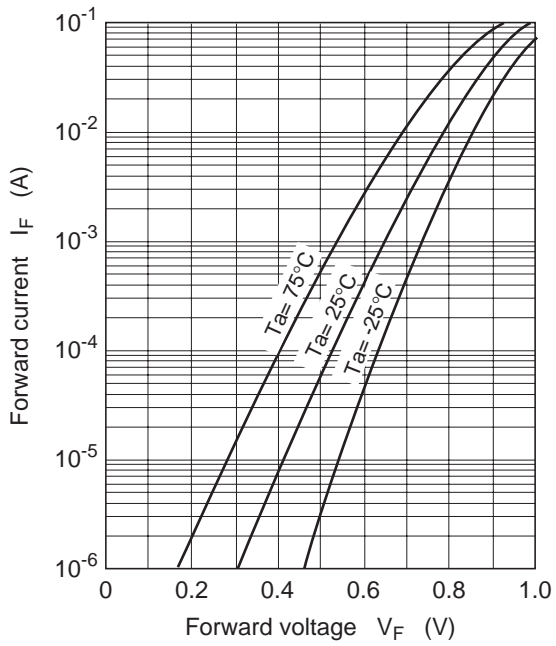


Fig.1 Forward current vs. Forward voltage

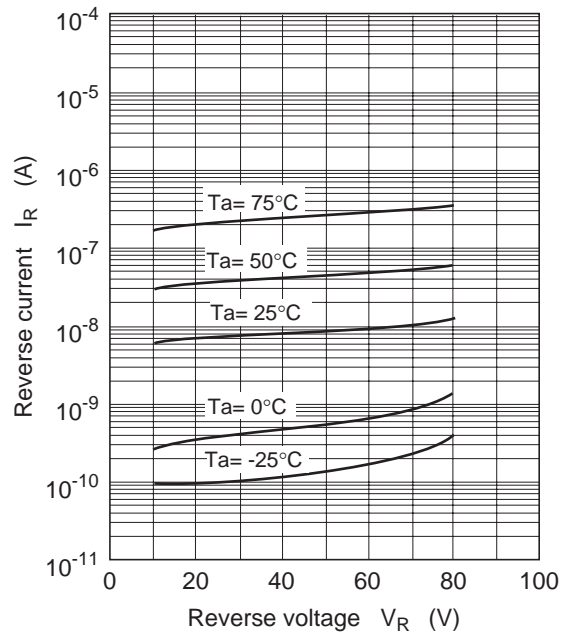


Fig.2 Reverse current vs. Reverse voltage

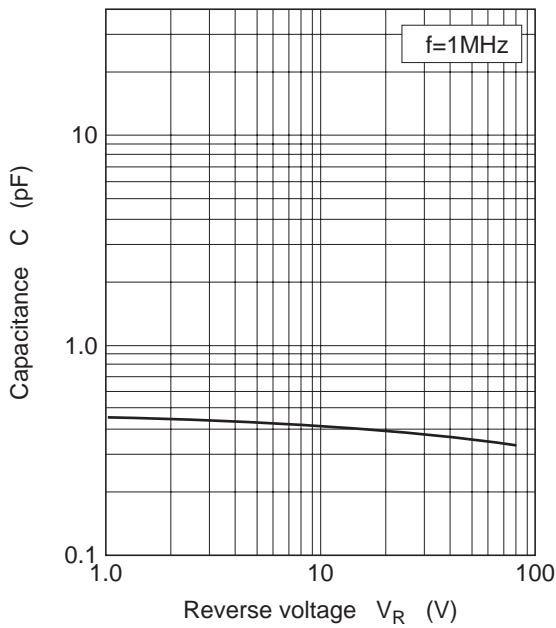
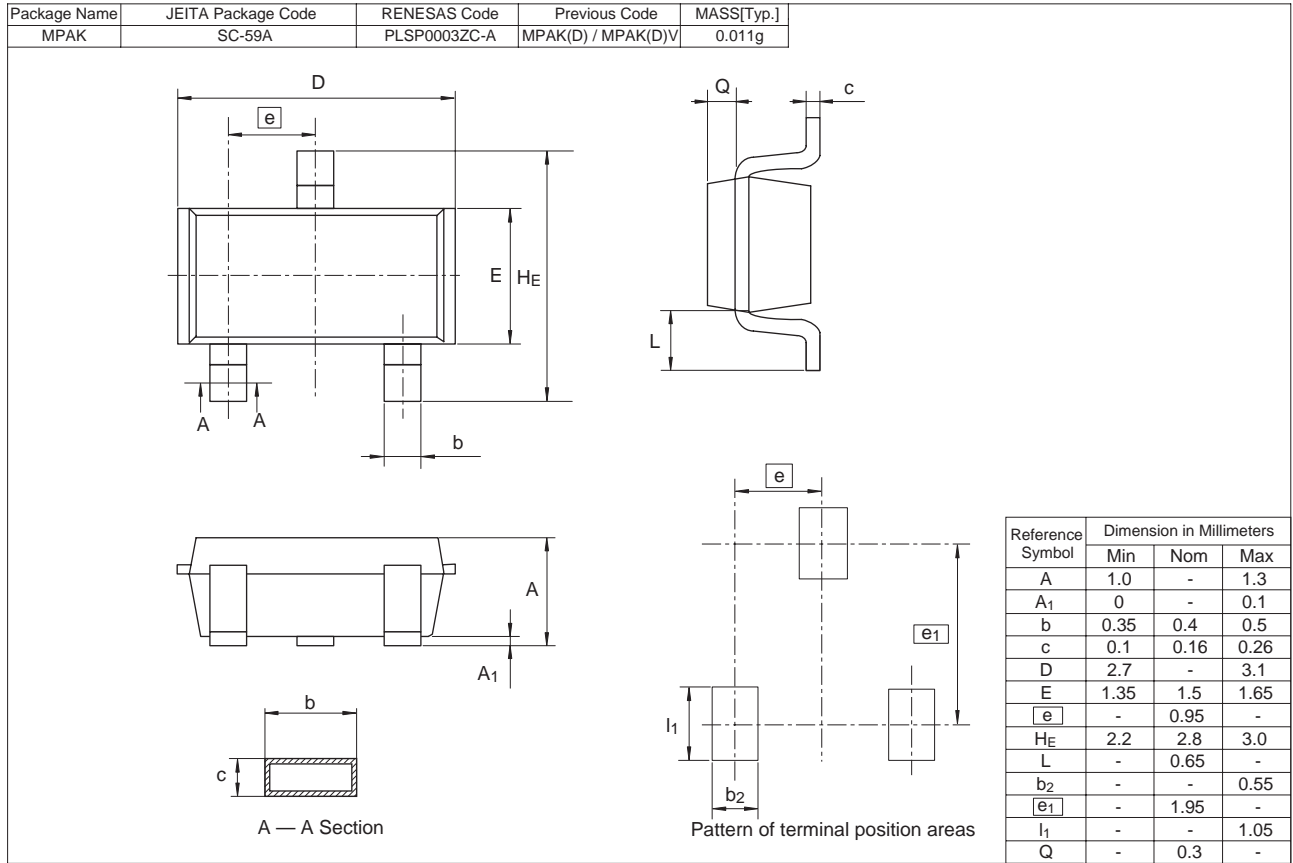


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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