

HSM221C

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0552-0600

Rev.6.00

Dec 12, 2008

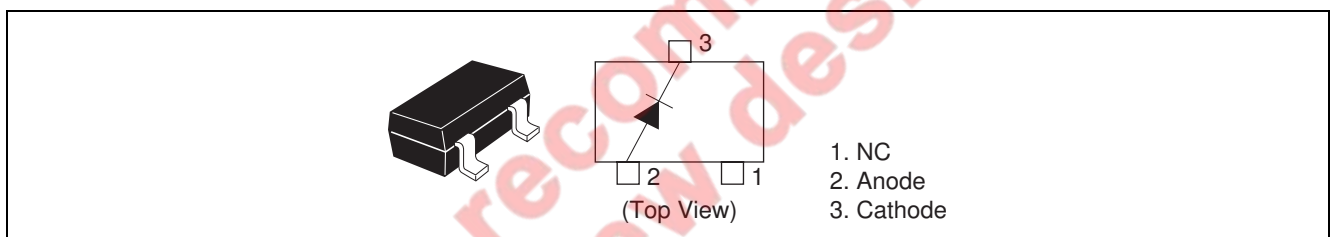
Features

- Low capacitance, proof against high voltage.
- Fast recovery time. ($t_{rr} = 3.0\text{ns max}$)
- 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)
HSM221CTL	A2	MPAK	PLSP0003ZC-A	TL (3,000 pcs / reel)
HSM221CTR	A2	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 μs.

Electrical Characteristics

(Ta = 25°C)

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

Not recommended
for new designs

Main Characteristics

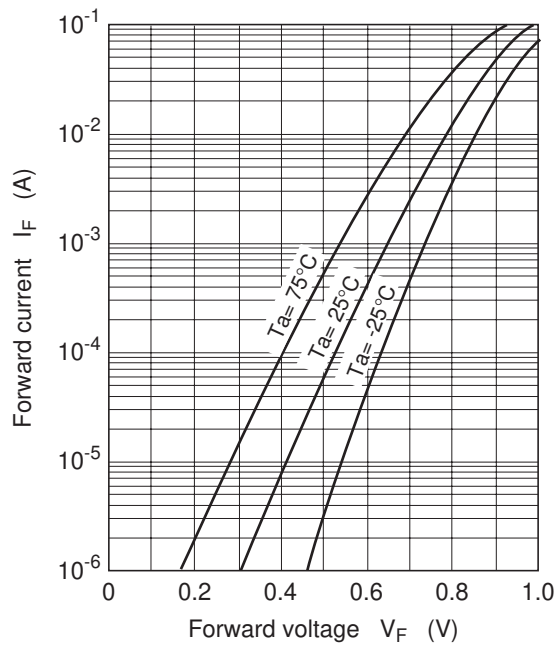


Fig.1 Forward current vs. Forward voltage

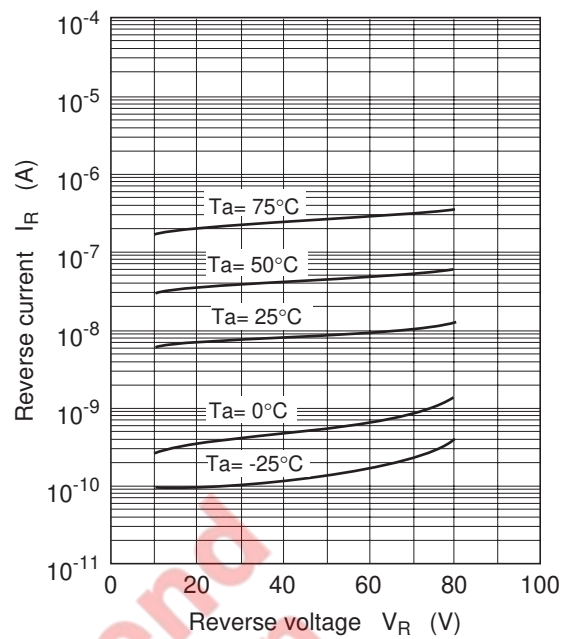


Fig.2 Reverse current vs. Reverse voltage

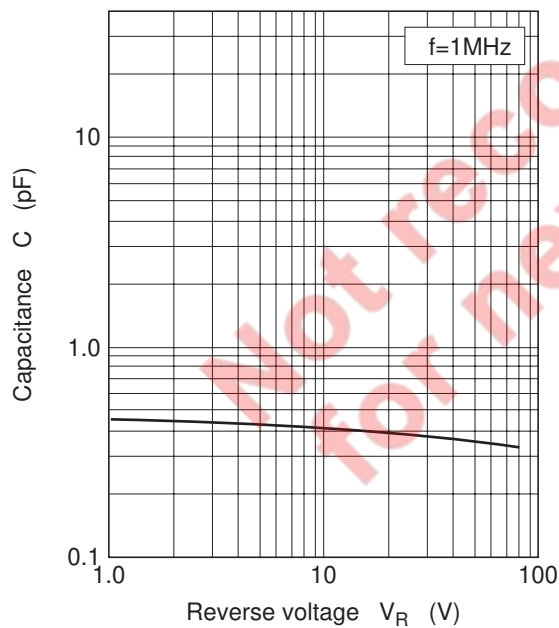
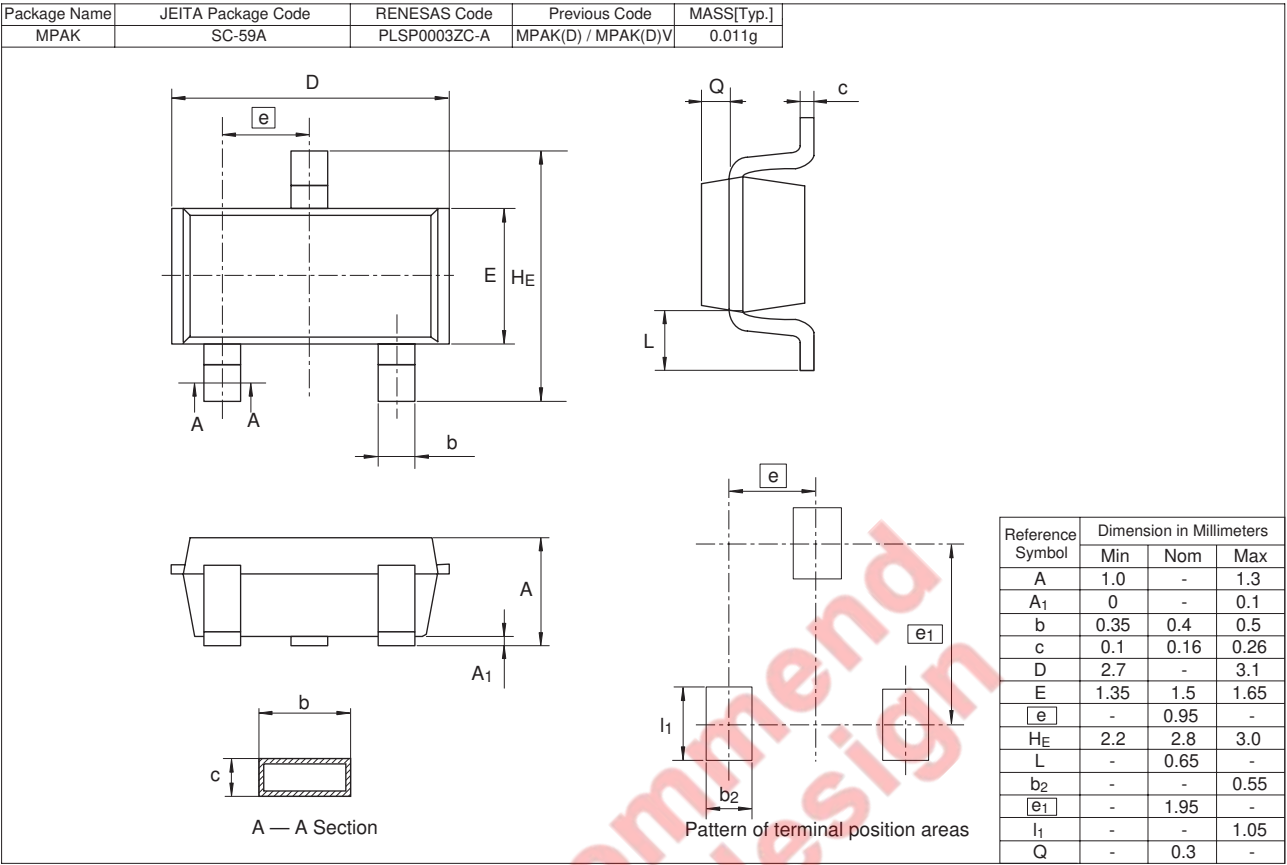


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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