HSM221C

Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0552-0500
(Previous: ADE-208-028D)
Rev.5.00
Mar 10, 2005

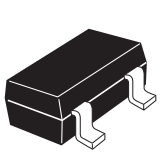
Features

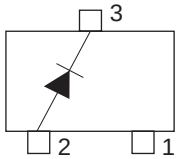
- Low capacitance, proof against high voltage.
- Fast recovery time.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HSM221C	A2	MPAK	PLSP0003ZC-A (MPAK)

Pin Arrangement





(Top View)

1. NC
2. Anode
3. Cathode

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	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°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_{F1}	—	0.76	1.0	V	I_F = 10 mA
	V_{F2}	—	0.88	1.0		I_F = 50 mA
	V_{F3}	—	0.97	1.2		I_F = 100 mA
Reverse current	I_R	—	—	0.1	µA	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 Characteristic

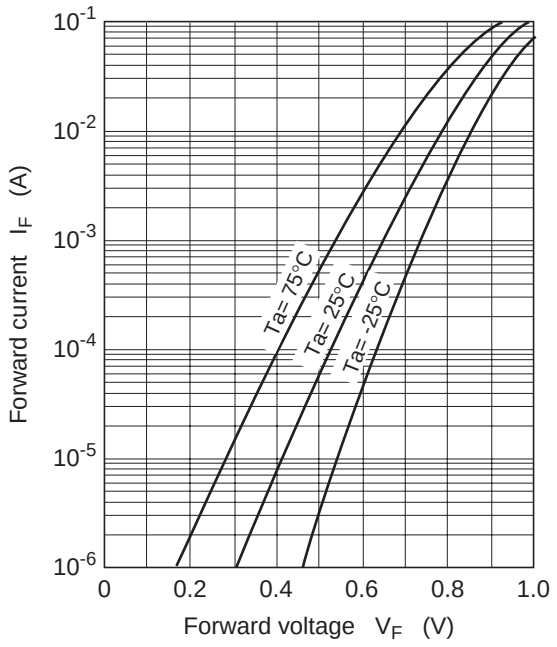


Fig.1 Forward current vs. Forward voltage

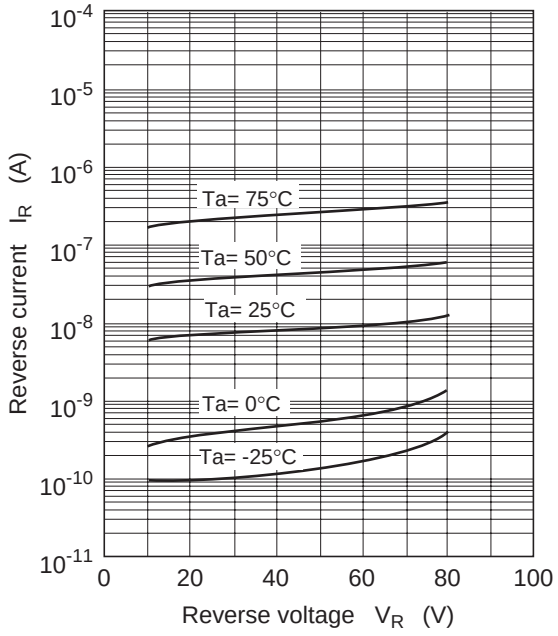


Fig.2 Reverse current vs. Reverse voltage

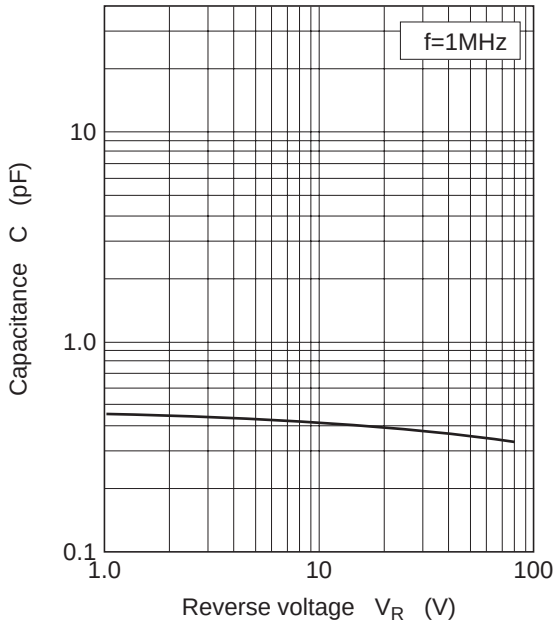
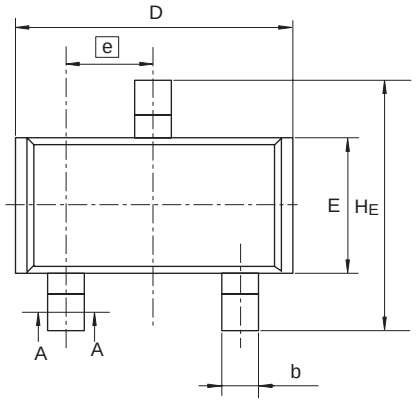
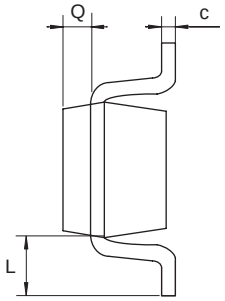


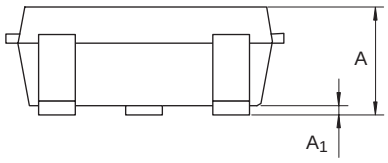
Fig.3 Capacitance vs. Reverse voltage

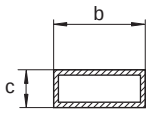
Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]
SC-59A	PLSP0003ZC-A	MPAK(D) / MPAK(D)V	0.011g

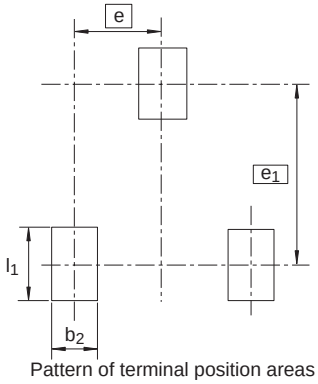








A — A Section



Pattern of terminal position areas

Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
A	1.0	-	1.3
A_1	0	-	0.1
b	0.35	0.4	0.5
c	0.1	0.16	0.26
D	2.7	-	3.1
E	1.35	1.5	1.65
e	-	0.95	-
H_E	2.2	2.8	3.0
L	-	0.65	-
b_2	-	-	0.55
e_1	-	1.95	-
l_1	-	-	1.05
Q	-	0.3	-

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http://www.renesas.com

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Colophon 2.0