HSM122

Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G1299-0100
Rev.1.00
Oct 27, 2005

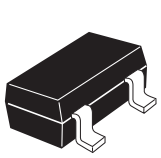
Features

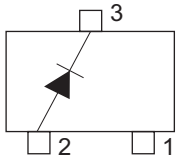
- High reverse voltage. (V_R = 400 V)
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Name	Package Code (Previous Code)
HSM122	F8	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}	420	V
Reverse voltage	V_R	400	V
Peak forward current	I_{FM}	625	mA
Non-Repetitive peak forward surge current	I_{FSM} *1	1	A
Average rectified current	I_O	150	mA
Power dissipation	Pd *2	150	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

Notes: 1. Value at duration of 1s.
2. Standard substrate mounting (20mm × 15mm × 0.8t mm, With Polyimide board)

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_R	—	—	1.0	µA	V_R = 400 V
Capacitance	C	—	—	10	pF	V_R = 0 V, f = 1 MHz
Reverse recovery time	t_{rr}	—	—	20	µs	I_F = 30 mA, V_R = 10 V, R_L = 2 kΩ

Main Characteristic

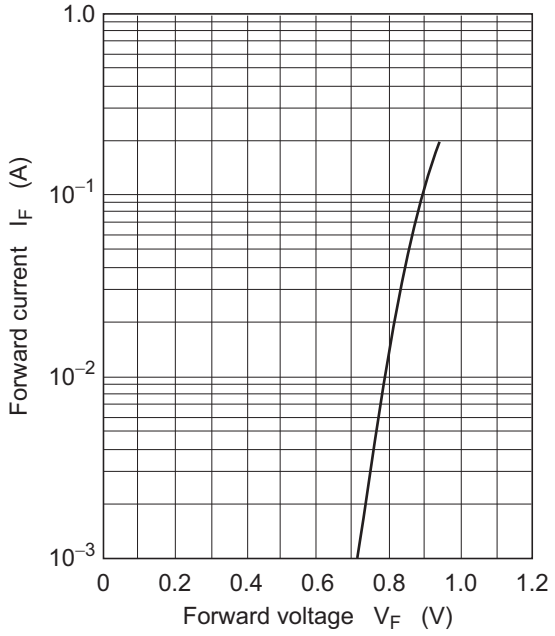


Fig.1 Forward current vs. Forward voltage

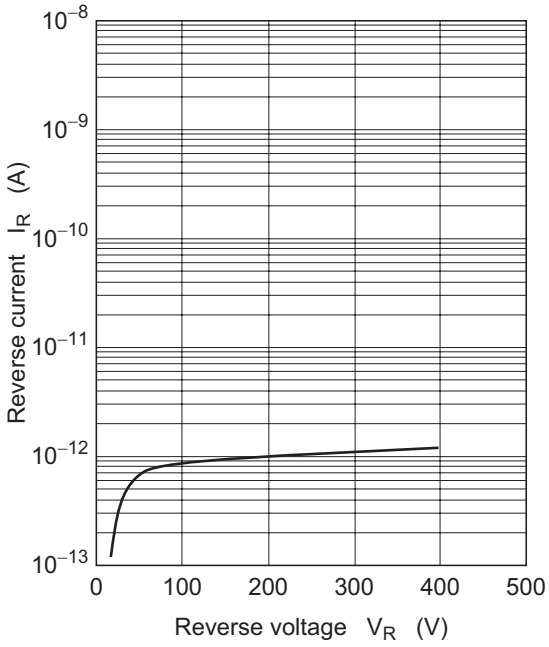
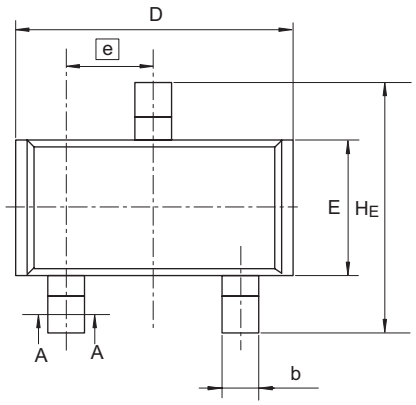
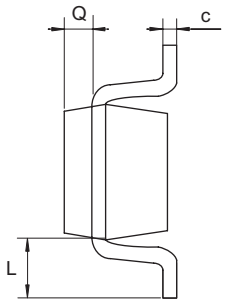


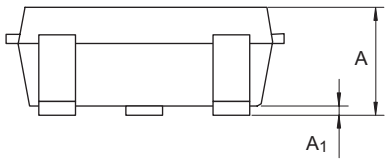
Fig.2 Reverse current vs. Reverse voltage

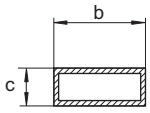
Package Dimensions

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

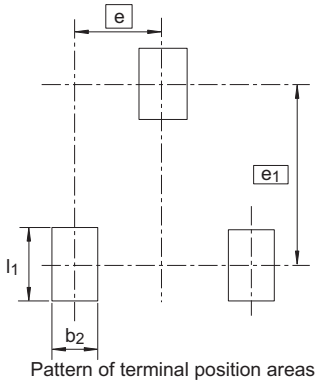








A — A Section



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	-

Renesas Technology Corp. Sales Strategic Planning Div. Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan

RENESAS SALES OFFICES

http://www.renesas.com

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Renesas Technology America, Inc.
450 Holger Way, San Jose, CA 95134-1368, U.S.A
Tel: <1> (408) 382-7500, Fax: <1> (408) 382-7501

Renesas Technology Europe Limited
Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K.
Tel: <44> (1628) 585-100, Fax: <44> (1628) 585-900

Renesas Technology (Shanghai) Co., Ltd.
Unit 205, AZIA Center, No.133 Yincheng Rd (n), Pudong District, Shanghai 200120, China
Tel: <86> (21) 5877-1818, Fax: <86> (21) 6887-7898

Renesas Technology Hong Kong Ltd.
7th Floor, North Tower, World Finance Centre, Harbour City, 1 Canton Road, Tsimshatsui, Kowloon, Hong Kong
Tel: <852> 2265-6688, Fax: <852> 2730-6071

Renesas Technology Taiwan Co., Ltd.
10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

Renesas Technology Singapore Pte. Ltd.
1 Harbour Front Avenue, #06-10, Keppel Bay Tower, Singapore 098632
Tel: <65> 6213-0200, Fax: <65> 6278-8001

Renesas Technology Korea Co., Ltd.
Kukje Center Bldg. 18th Fl., 191, 2-ka, Hangang-ro, Yongsan-ku, Seoul 140-702, Korea
Tel: <82> (2) 796-3115, Fax: <82> (2) 796-2145

Renesas Technology Malaysia Sdn. Bhd
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510

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