HSM123

## Silicon Epitaxial Planar Diode for High Speed Switching

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)
HSM123TL	A9	MPAK	PLSP0003ZC-A	TL (3,000 pcs / reel)
HSM123TR	A9	MPAK	PLSP0003ZC-A	TR (3,000 pcs / reel)

Pin Arrangement

(Top View)

1. Cathode2
2. Anode1
3. Cathode1
   Anode2
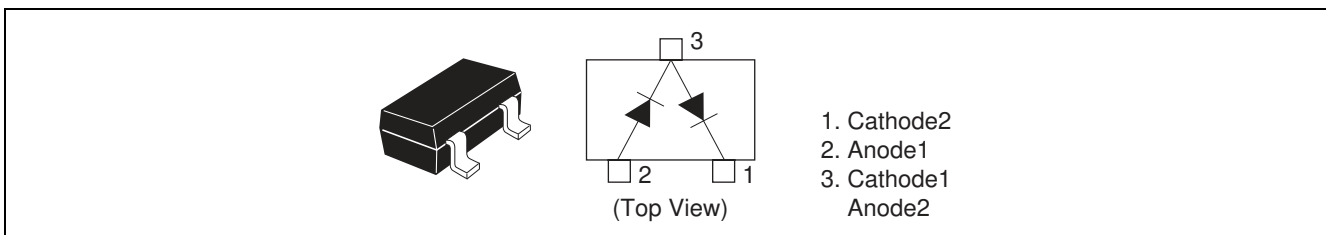
Absolute Maximum Ratings *[1]

(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} *[2]	4	A
Average rectified current	I_O	100	mA
Junction temperature	Tj	150	°C
Storage temperature	Tstg	−55 to +150	°C

Notes: 1. Per one device.
2. Within 1 μs forward surge current.

Electrical Characteristics

(Ta = 25°C)

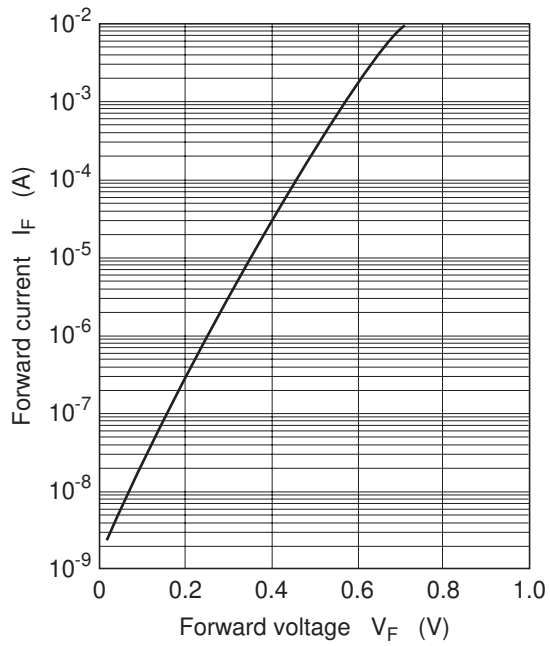| Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	0.70	1.0	V	I_F = 10 mA
	V_F	—	0.79	1.0	V	I_F = 50 mA
	V_F	—	0.85	1.2	V	I_F = 100 mA
Reverse current	I_R	—	—	0.1	μA	V_R = 80 V
Capacitance	C	—	1.0	4.0	pF	V_R = 0 V, f = 1 MHz
Reverse recovery time	t_{rr}	—	—	3.0	ns	I_F = 10 mA, V_R = 6 V, R_L = 50 Ω

RENESAS

Main Characteristics

Fig.1 Forward Current vs. Forward Voltage
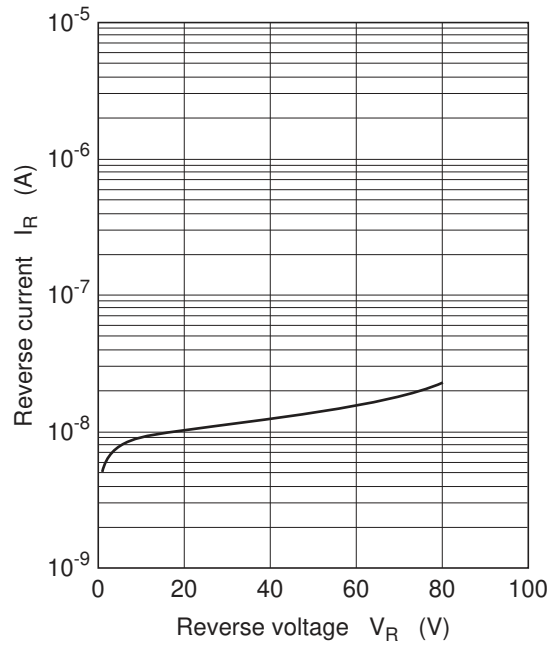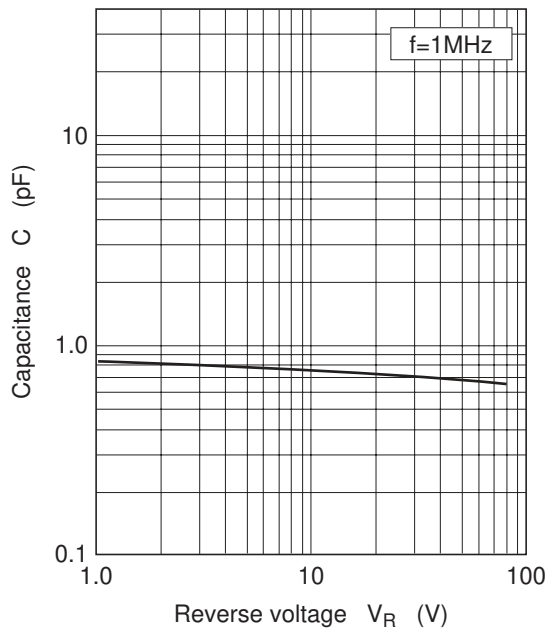

Fig.2 Reverse Current vs. Reverse Voltage

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	-

RENESAS

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http://www.renesas.com

Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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