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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

Cautions

Keep safety first in your circuit designs!

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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HSM88AS

Silicon Schottky Barrier Diode for Balanced Mixer

RENESAS

ADE-208-046E (Z)

Rev. 5
Jul. 1998

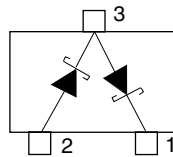
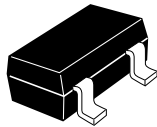
Features

- Proof against high voltage.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HSM88AS	C1	MPAK

Pin Arrangement



(Top View)

- 1 Cathode 2
- 2 Anode 1
- 3 Cathode 1
Anode 2

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Average rectified current	I_O^{*1}	15	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	−55 to +125	°C

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	350	—	420	mV	$I_F = 1 \text{ mA}$
	V_{F2}	500	—	580		$I_F = 10 \text{ mA}$
Reverse current	I_{R1}	—	—	0.2	μA	$V_R = 2\text{V}$
	I_{R2}	—	—	10		$V_R = 10\text{V}$
Capacitance	C	—	—	0.85	pF	$V_R = 0\text{V}$, $f = 1 \text{ MHz}$
Capacitance deviation	ΔC	—	—	0.10	pF	$V_R = 0\text{V}$, $f = 1 \text{ MHz}$
Forward voltage deviation	ΔV_F	—	—	10	mV	$I_F = 10 \text{ mA}$
ESD-Capability ^{*1}	—	30	—	—	V	C=200pF , Both forward and reverse direction 1 pulse.

Notes 1. Failure criterion ; $I_R \geq 400\text{nA}$ at $V_R = 2 \text{ V}$

Main Characteristic

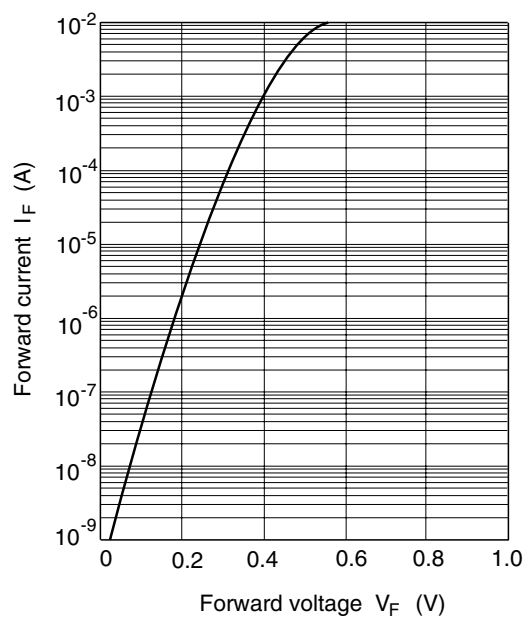


Fig.1 Forward current Vs. Forward voltage

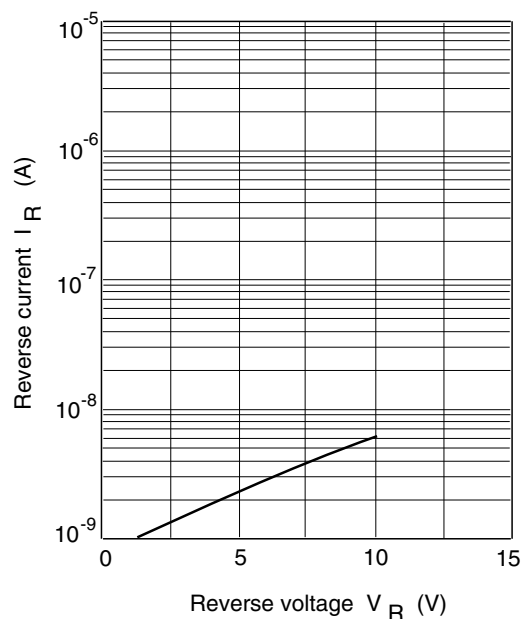


Fig.2 Reverse current Vs. Reverse voltage

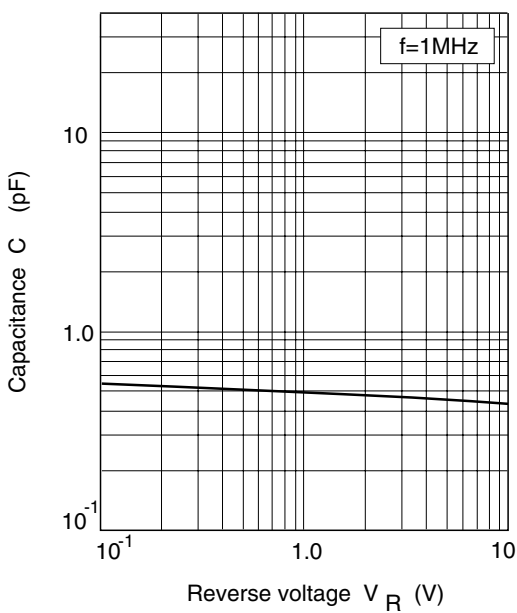
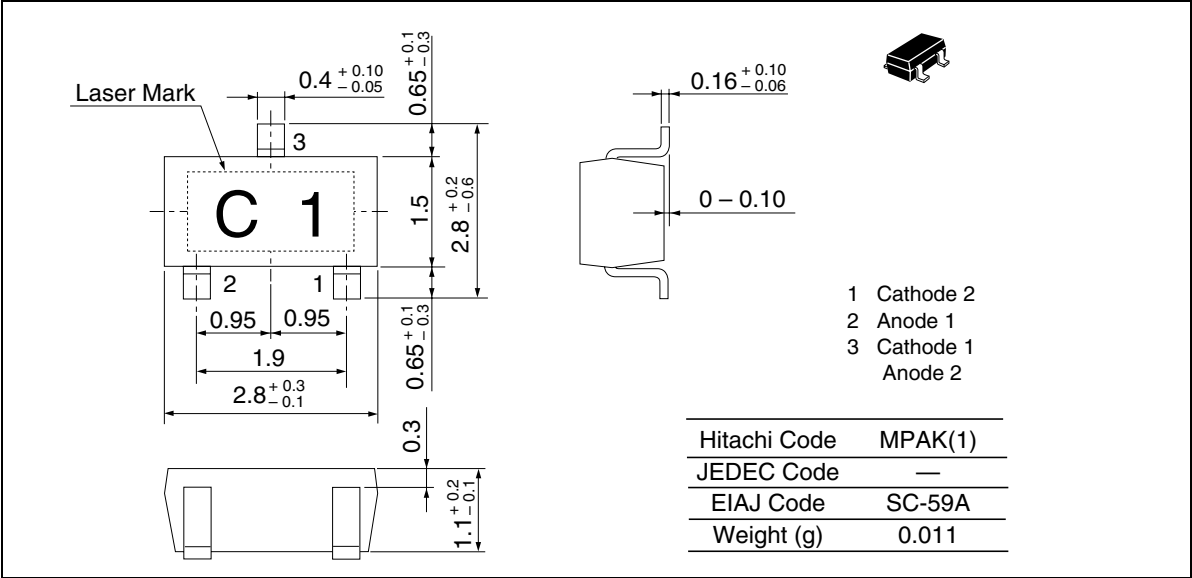


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



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