HSM198S

Silicon Schottky Barrier Diode forVarious Detector,
High speed switching

HITACHI

ADE-208-090B (Z)
Rev. 2
Jun. 1993

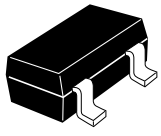
Features

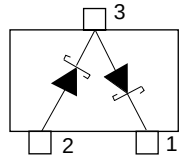
- Detection efficiency is very good.
- Small temperature coefficient.
- HSM198S which is interconnected in series configuration is designed for balanced mixer use.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HSM198S	C6	MPAK

Pin Arrangement





(Top View)

1 Cathode 2
2 Anode 1
3 Cathode 1
Anode 2

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	10	V
Average forward current	I_O*	30	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

Note: Two device total

Electrical Characteristics (Ta = 25°C)*[1]

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.1	V	I_F = 5mA
Reverse current	I_R	—	—	70	µA	V_R = 6V
Forward current	I_F	4.5	—	—	mA	V_F = 1V
Capacitance	C	—	—	1.5	pF	V_R = 1V, f = 1MHz
Capacitance deviation	ΔV_F	—	—	10	mV	I_F = 5mA
Rectifier efficiency	η	70	—	—	%	Vin = 2Vrms, f = 40MHz, R_L = 5kΩ, C_L = 20pF
ESD Capability	—	30	—	—	V	*[2]C = 200pF, Both forward and reverse direction 1 pulse

Notes: 1. Per one device
2. Failure Criterrion; $I_R \geq 140$ µA at V_R = 6V

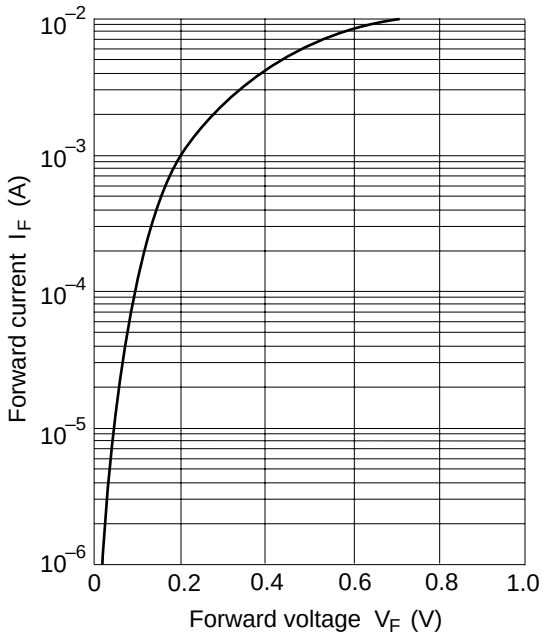


Fig.1 Forward current Vs. Forward voltage

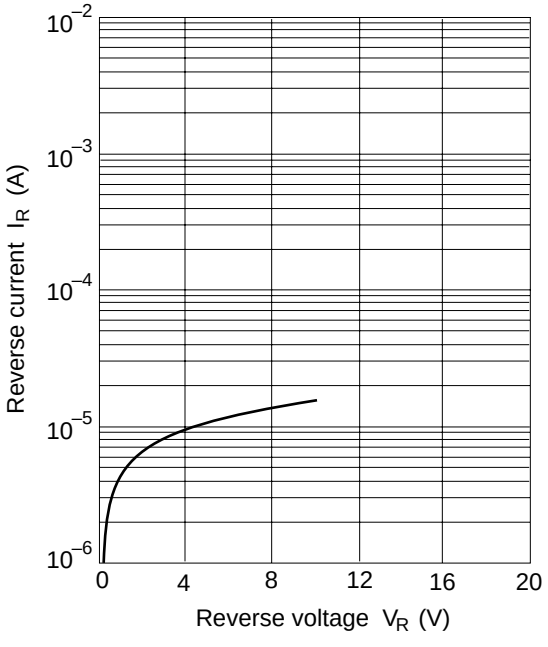


Fig.2 Reverse current Vs. Reverse voltage

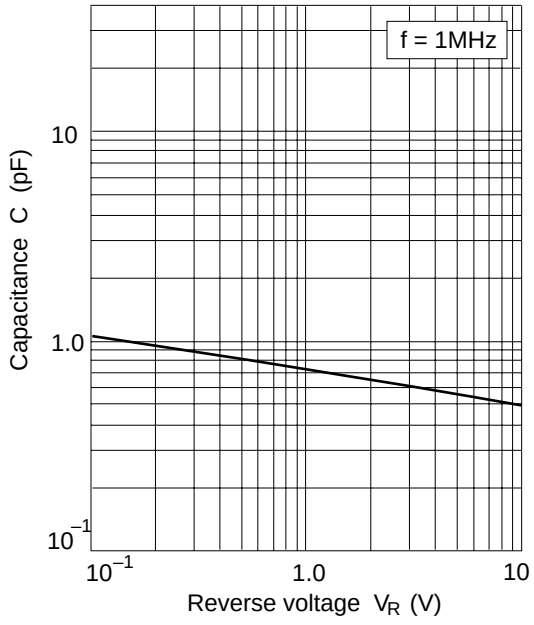
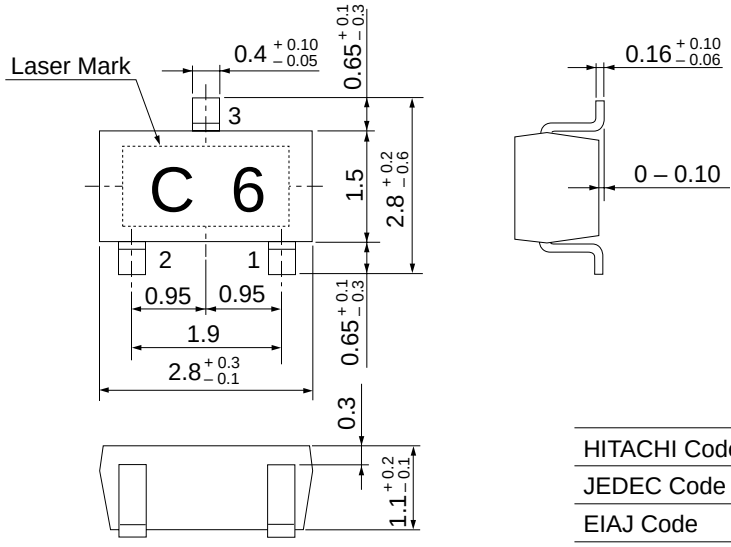


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit: mm



1 Cathode 2
2 Anode 1
3 Cathode 1
Anode 2

HITACHI Code	MPAK(1)
JEDEC Code	—
EIAJ Code	SC-59A
Weight (g)	0.011

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