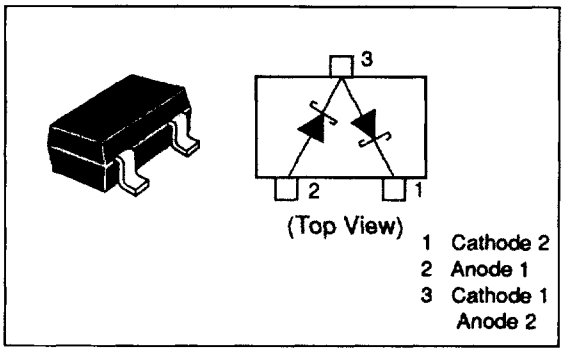
HSM198S

Silicon Schottky Barrier Diode for Various Detector, High Speed Switching

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.

Pin Arrangement



Ordering Information

Type No.	Laser Mark	Package Code
HSM198S	C 6	MPAK

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	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

* Two device total

Electrical Characteristics (Ta = 25°C) *

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

* Per one device

** Failure Criterion ; $I_R \geq 140$ μA at V_R = 6V

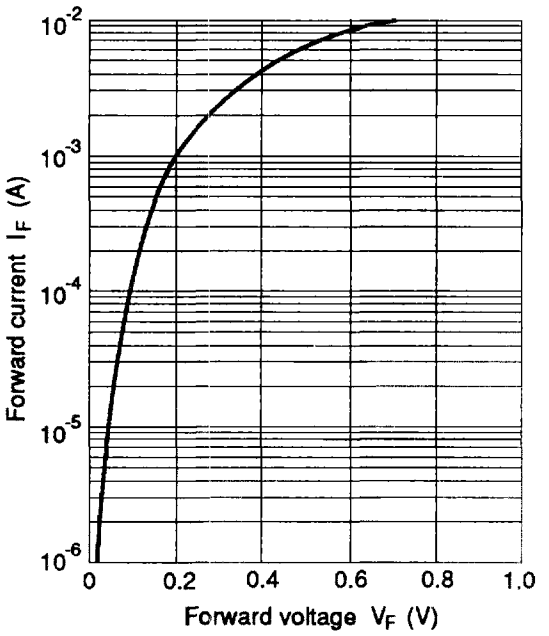


Fig.1 Forward current Vs. Forward voltage

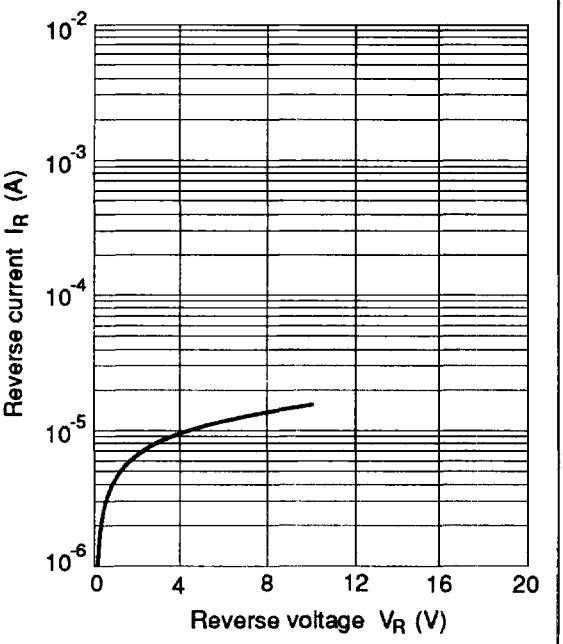


Fig.2 Reverse current Vs. Reverse voltage

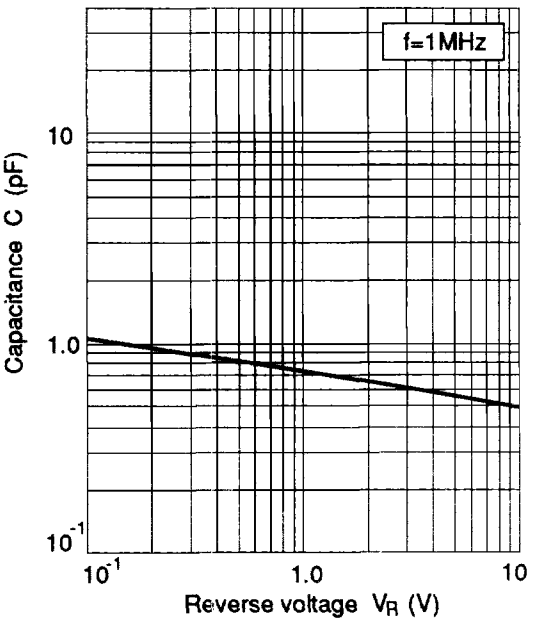


Fig.3 Capacitance Vs. Reverse voltage