AED-208-162A(Z)

HSE11
GaAs Schottky Barrier Diode for SHF Mixer

HITACHI

Rev. 1
Sep. 1994

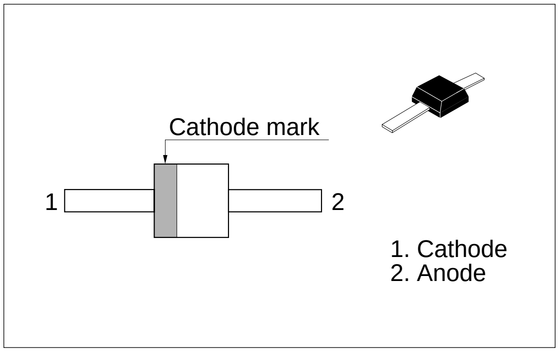
Features

- Low noise GaAs schottky.
- Low capacitance. (C =0.4pF max)

Ordering Information

Type No.	Mark	Package Code
HSE11	Cathode mark	ERP

Outline



Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	4.0	V
Forward current	I_F	50	mA
Peak forward current	I_{FM}	150	mA
Junction temperature	T_j	125	°C
Lead temperature	T_l *	230	°C
Storage temperature	T_{stg}	-55 to +125	°C

* Value at the nearest point from body for 10sec max. (one time)

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	I_F= 50 mA
Reverse voltage	V_R	4.0	—	—	V	I_R = 10 µA
Capacitance	C	—	—	0.4	pF	V_R = 0 V, f = 1 MHz
Series resistance	r_s	—	—	1.3	Ω	$rs=50V_{F3} -150.75V_{F2} +100.75V_{F1}$ V_{F1}: I_F=1.0mA , V_{F2}: I_F=2.7mA V_{F3}: I_F=20mA
ESD capability	—	25	—	—	V	* C= 25pF

* Failure criterion ; $I_R \geq 1\mu A$ at V_R = 2V

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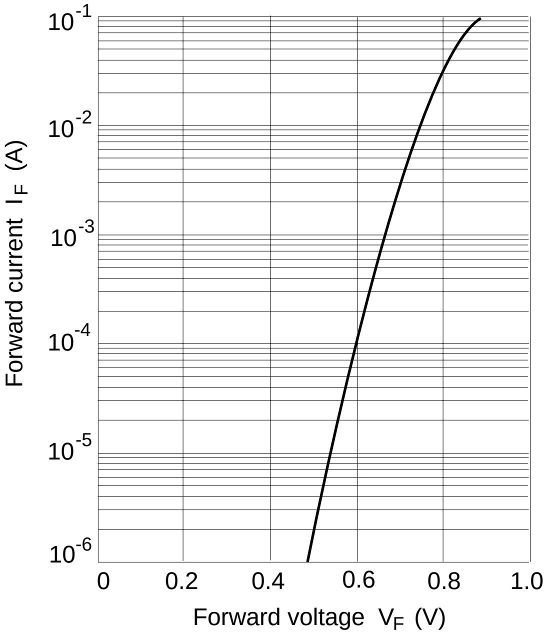


Fig.1 Forward current Vs. Forward voltage

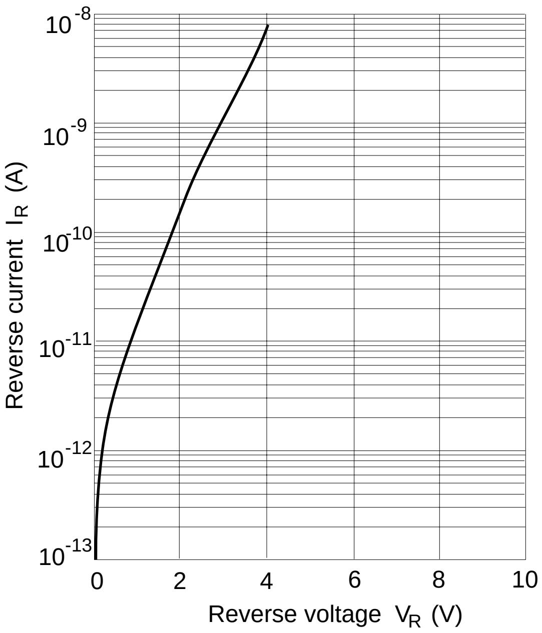


Fig.2 Reverse current Vs. Reverse voltage

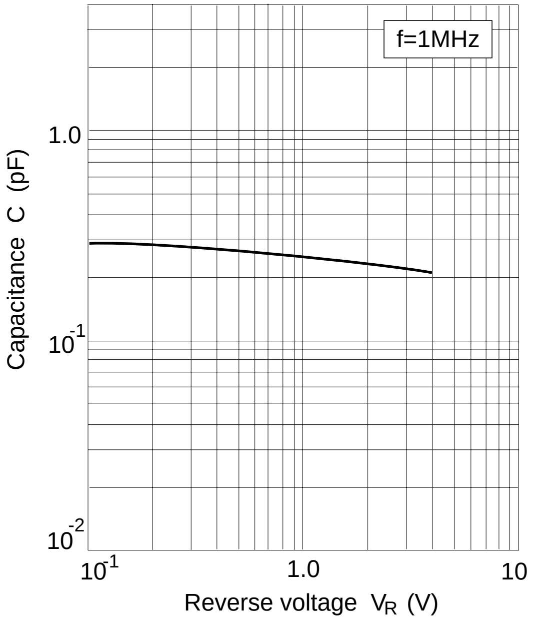


Fig.3 Capacitance Vs. Reverse voltage

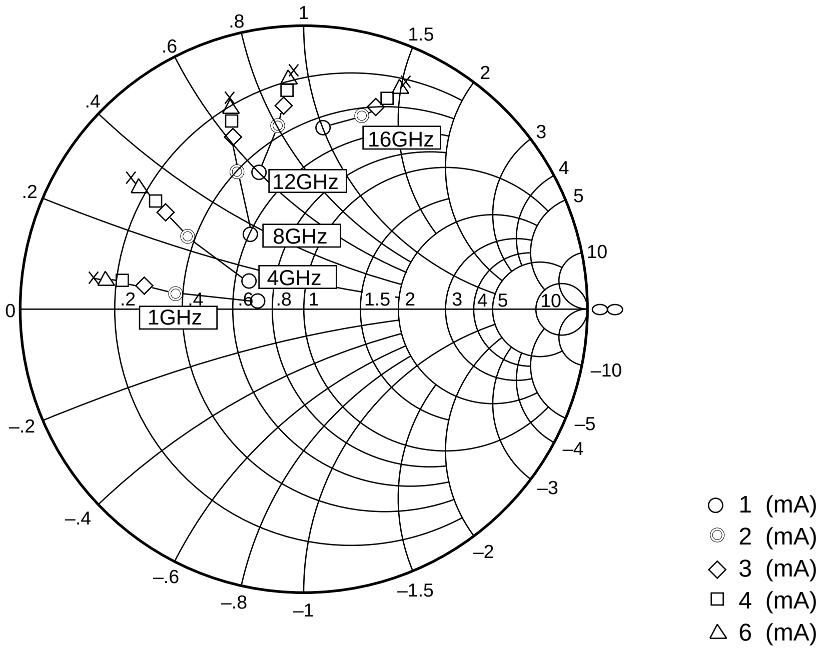
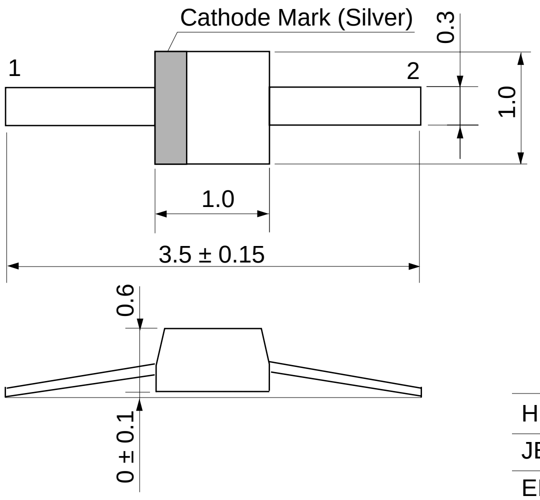


Fig.4 S Parameter

Package Dimensions

Unit: mm



1 Cathode
2 Anode

HITACHI Code	ERP
JEDEC Code	—
EIAJ Code	—
Weight (g)	0.002