

# HRF22

Silicon Schottky Barrier Diode for Rectifying

# HITACHI

ADE-208-163D(Z)

Rev 4

Jul. 1997

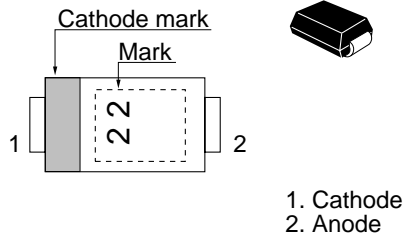
## Features

- Good for high-frequency rectify.
- LRP structure ensures higher reliability.

## Ordering Information

Type No.	Laser Mark	Package Code
HRF22	22	LRP

## Outline



## Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}^{*1}$	40	V
Average rectified current	$I_o^{*1}$	1.0	A
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	20	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

Note: 1. See from Fig.4 to Fig.7

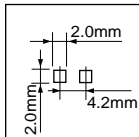
Note: 2. 10msec half sine wave 1 pulse

## Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.55	V	$I_F = 1.0A$
Reverse current	$I_R$	—	—	1.0	mA	$V_R = 40V$
ESD-Capability	—	150	—	—	V	C=200pF, R=0Ω, Both forward and reverse direction 1 pulse.
Thermal resistance	Rth(j-a)	—	—	108	°C/W	Alumina board <sup>*1</sup>
		—	—	157		Print board <sup>*2</sup>

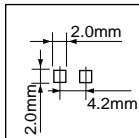
Note: 1. Alumina board

(25mm ~25mm ~0.64t)



Note: 2. Print board

(25mm ~25mm ~1.64t)



Main Characteristic

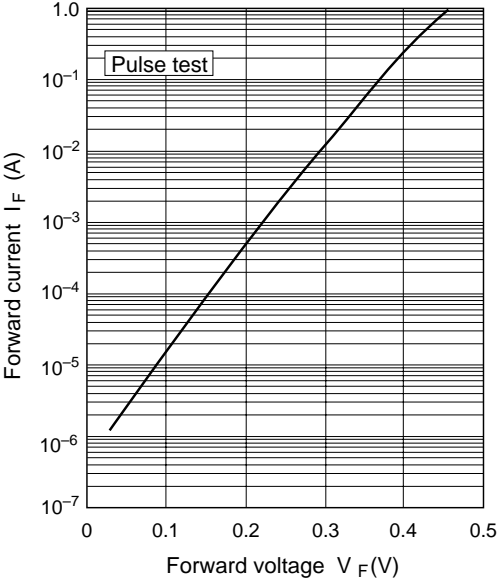


Fig.1 Forward current Vs. Forward voltage

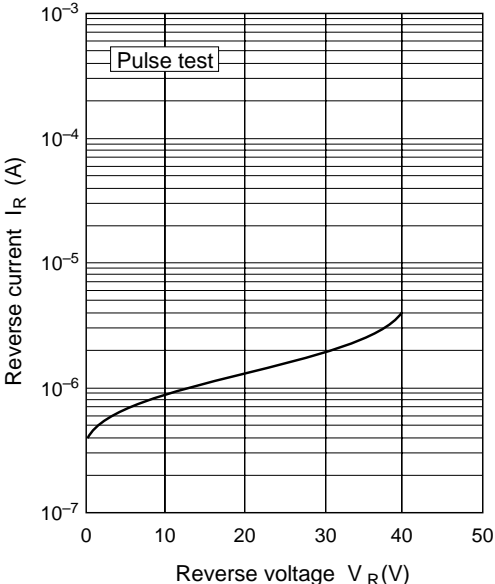


Fig.2 Reverse current Vs. Reverse voltage

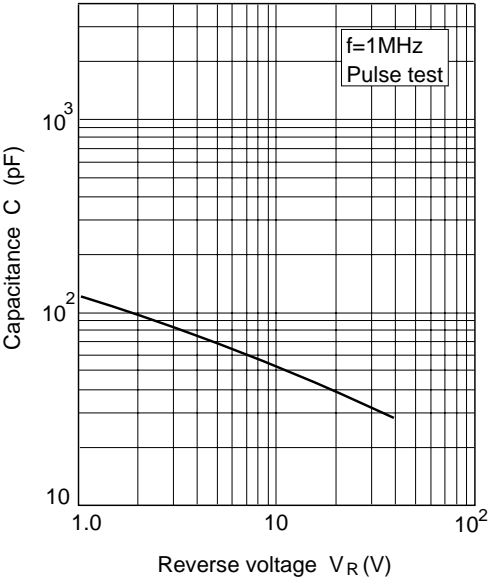


Fig.3 Capacitance Vs. Reverse voltage

Main Characteristic

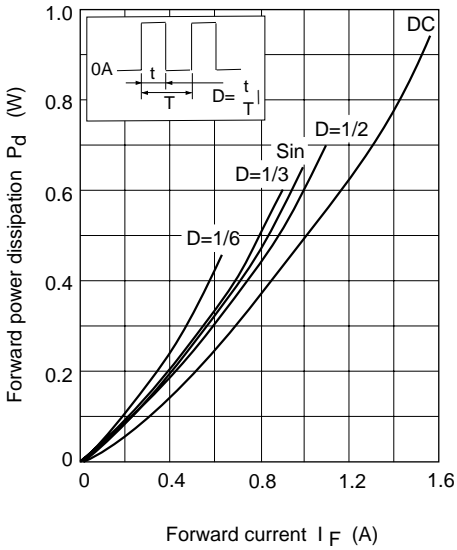


Fig.4 Forward power dissipation Vs. Forward current

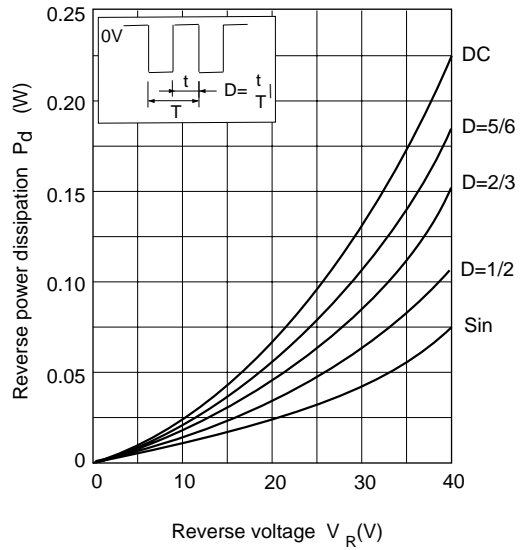


Fig.5 Reverse power dissipation Vs. Reverse voltage

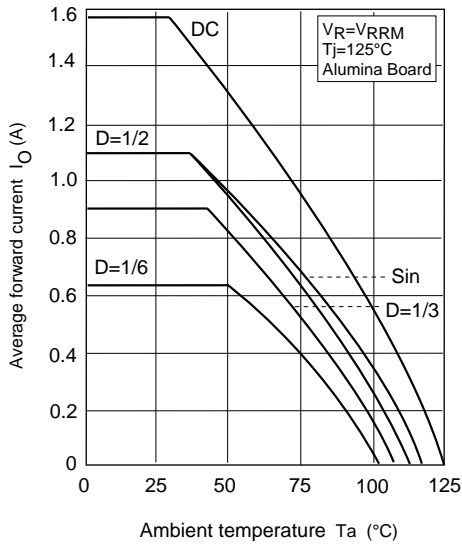


Fig.6 Average forward current Vs. Ambient temperature

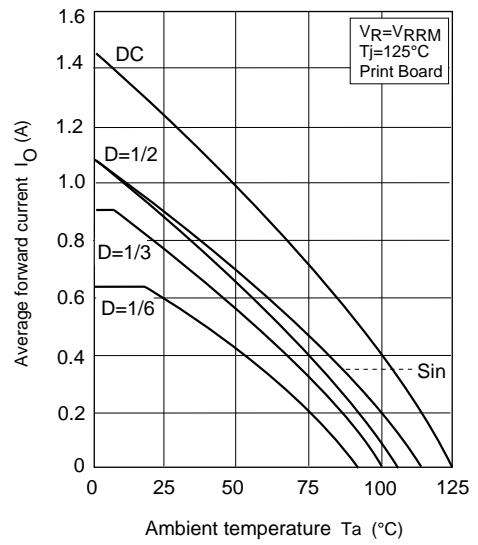
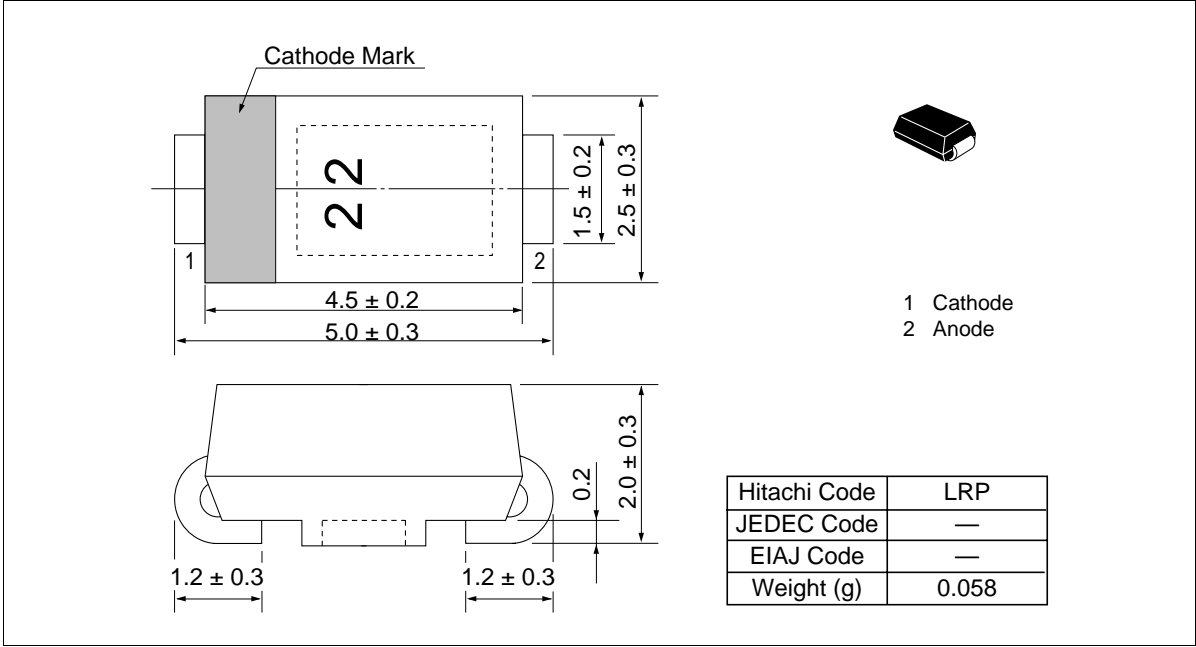


Fig.7 Average forward current Vs. Ambient temperature

Package Dimensions

Unit : mm



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