

---

# HRF503A

Silicon Schottky Barrier Diode for Rectifying

# HITACHI

ADE-208-401B(Z)  
Rev 2

---

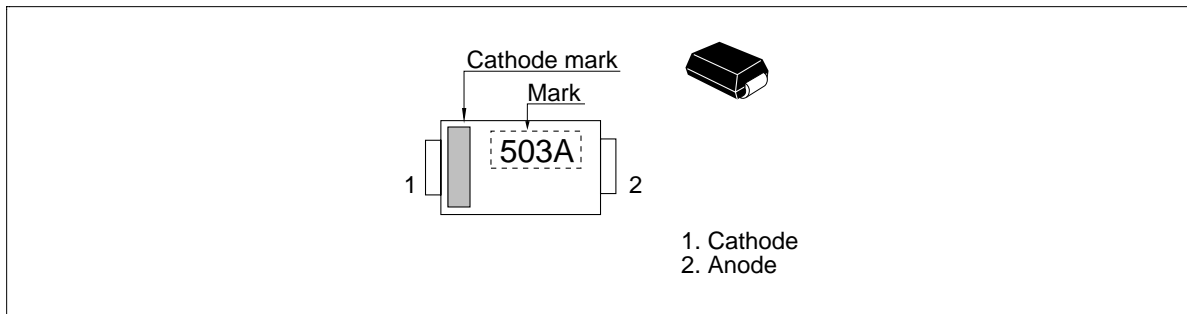
## Features

- Low forward voltage drop and suitable for high efficiency rectifying.
- DO-214 is suitable for high density surface mounting and high speed assembly.

## Ordering Information

Type No.	Laser Mark	Package Code
HRF503A	503A	DO-214

## Outline



## HRF503A

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

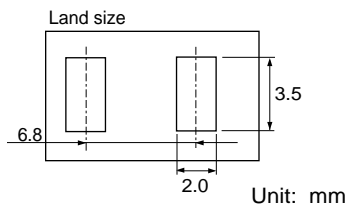
Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}^{*1}$	35	V
Average rectified current	$I_o^{*1}$	5	A
Non-Repetitive peak forward surge current	$I_{FSM}^{*2}$	100	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-40 to +125	°C

Notes: 1. See from Fig.4 to Fig.7  
2. 10msec half sine wave 1 pulse

### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	—	0.38	—	V	$I_F = 3A$
	$V_{F2}$	—	—	0.45		$I_F = 5A$
Reverse current	$I_R$	—	—	1.0	mA	$V_R = 35V$
Thermal resistance	Rth(j-a)	—	75	—	°C/W	Glass epoxy board <sup>*1</sup>
	Rth(j-c)	—	35	—		Tc = 25°C

Note: 1. Glass epoxy board



Main Characteristic

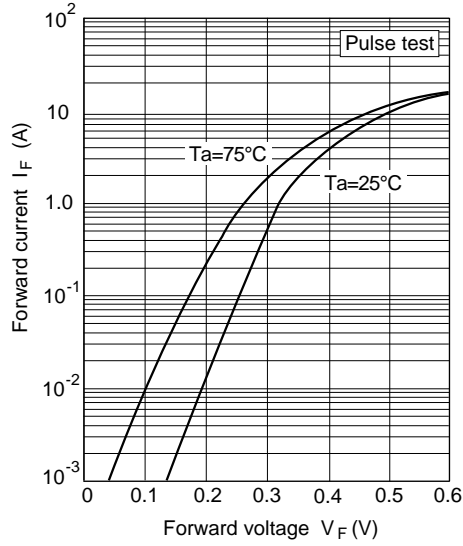


Fig.1 Forward current Vs. Forward voltage

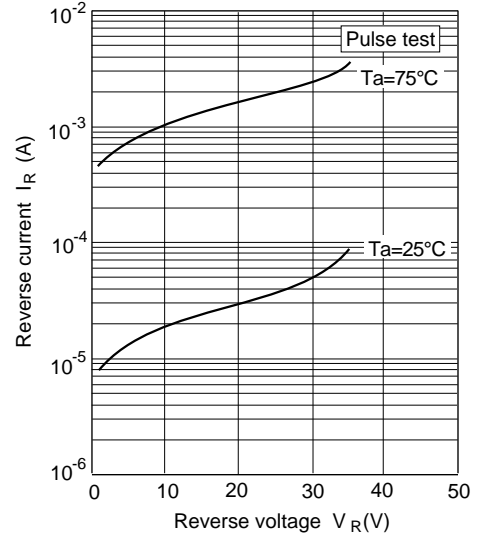


Fig.2 Reverse current Vs. Reverse voltage

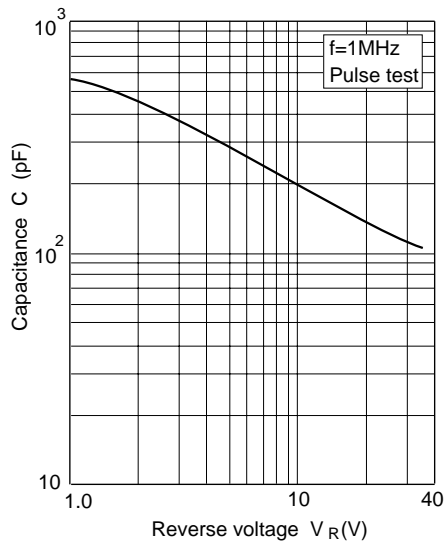


Fig.3 Capacitance Vs. Reverse voltage

# HRF503A

## Main Characteristic

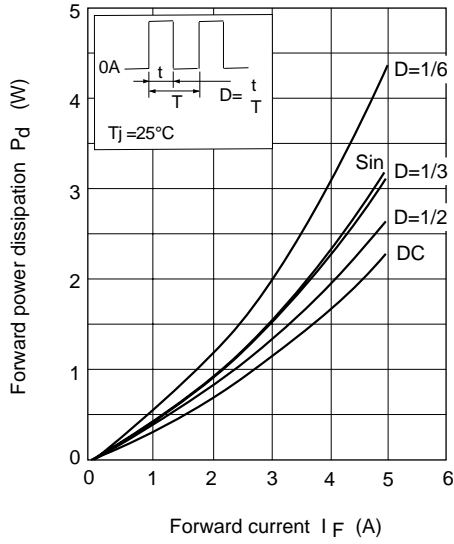


Fig.4 Forward power dissipation Vs. Forward current

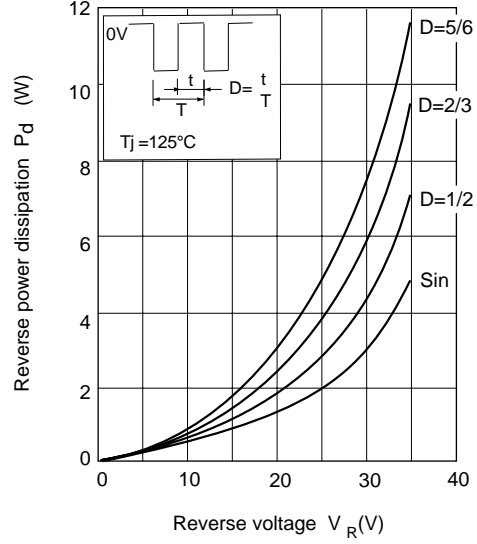


Fig.5 Reverse power dissipation Vs. Reverse voltage

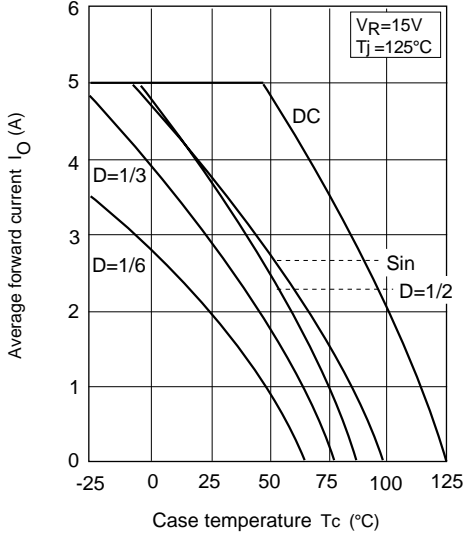


Fig.6 Average forward current Vs. Case temperature

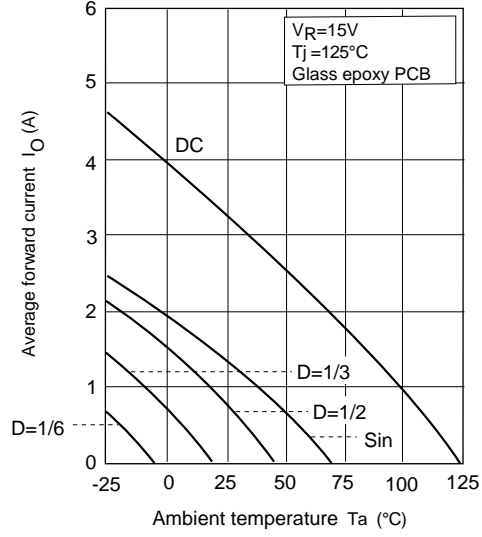


Fig.7 Average forward current Vs. Ambient temperature

**Package Dimensions**

Unit : mm

