

# HRF502A

Silicon Schottky Barrier Diode for Rectifying

# HITACHI

ADE-208-245C(Z)

Rev 3

Sep. 1997

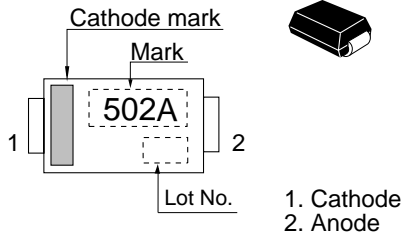
## Features

- 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
HRF502A	502A	DO-214

## Outline



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

Item	Symbol	Value	Unit
Repetitive peak reverse voltage	$V_{RRM}^{*1}$	20	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

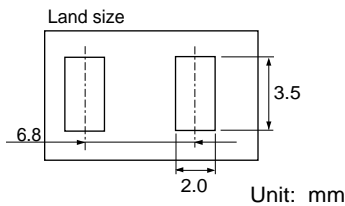
Note: 1. See from Fig.4 to Fig.7

Note: 2. 10msec half sine wave 1 pulse

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

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_F$	—	—	0.40	V	$I_F = 5A$
Reverse current	$I_R$	—	—	1.0	mA	$V_R = 20V$
ESD-Capability	—	250	—	—	V	C=200pF, R=0Ω, Both forward and reverse direction 1 pulse.
Thermal resistance	Rth(j-a)	—	90	—	°C/W	Glass epoxy board <sup>*1</sup>
	Rth(j-c)	—	42	—		Tc=25°C

Note: 1. Glass epoxy board



Main Characteristic

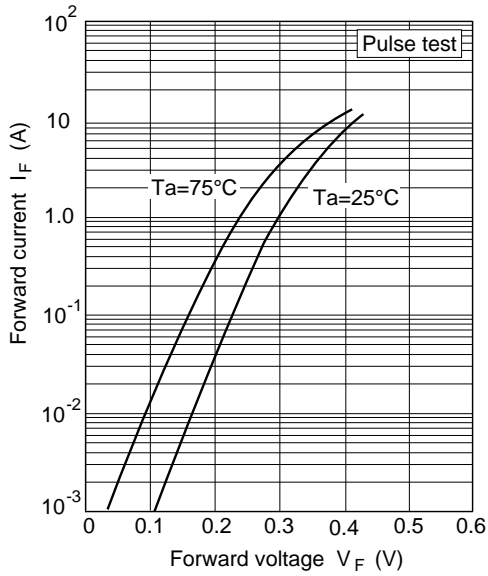


Fig.1 Forward current Vs. Forward voltage

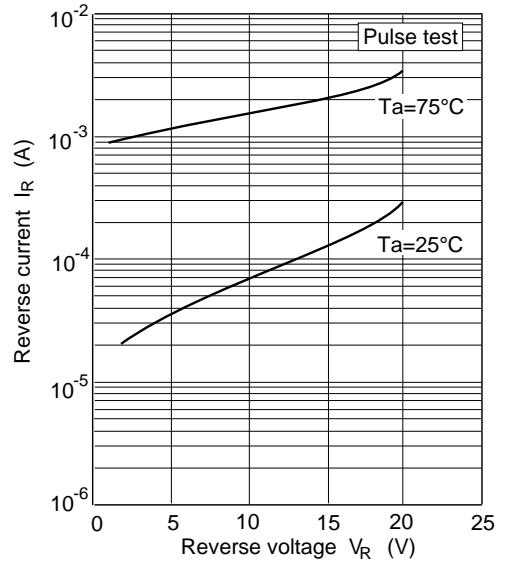


Fig.2 Reverse current Vs. Reverse voltage

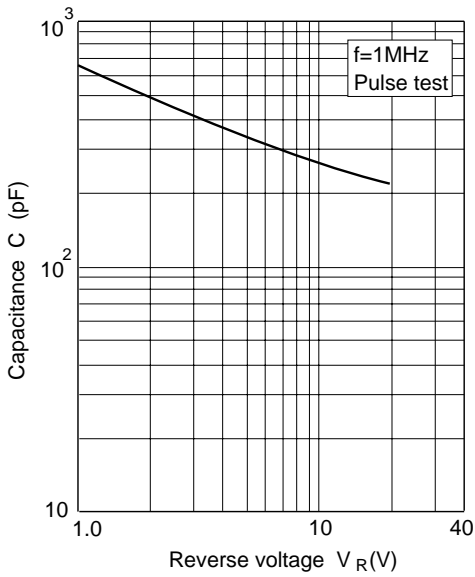


Fig.3 Capacitance Vs. Reverse voltage

## Main Characteristic

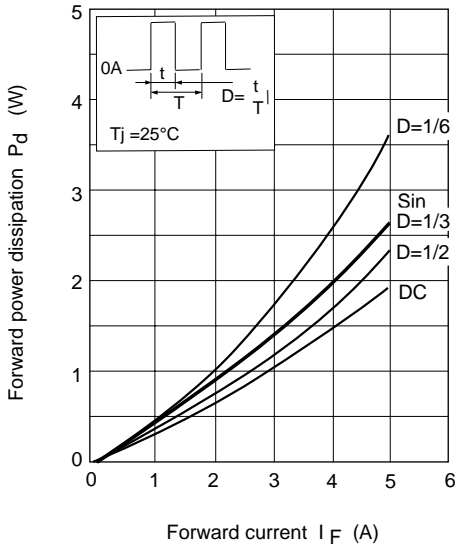


Fig.4 Forward power dissipation Vs. Forward current

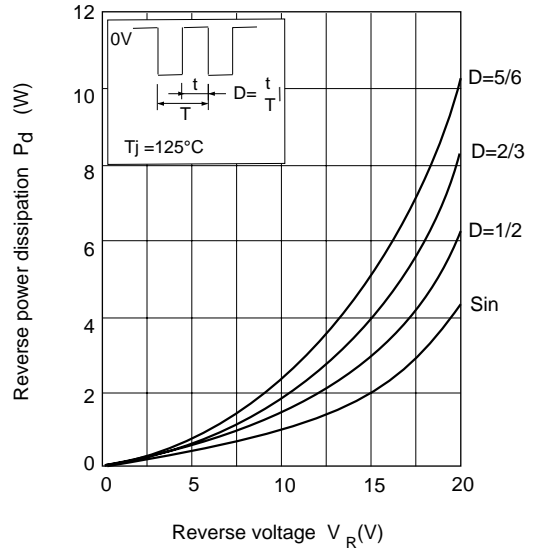


Fig.5 Reverse power dissipation Vs. Reverse voltage

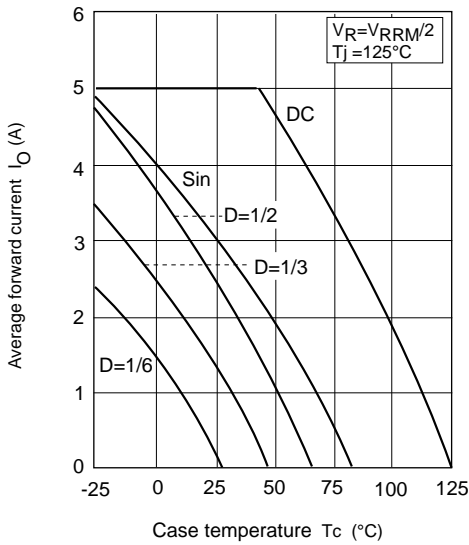


Fig.6 Average forward current Vs. Case temperature

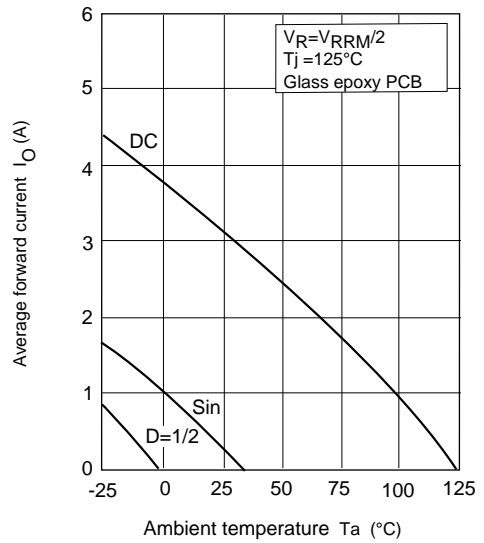
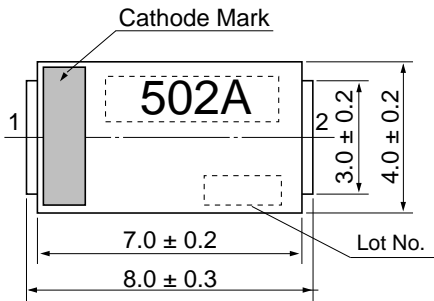


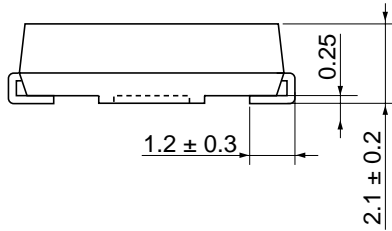
Fig.7 Average forward current Vs. Ambient temperature

Package Dimensions

Unit : mm



- 1 Cathode
- 2 Anode



Hitachi Code	DO-214
JEDEC Code	DO-214
EIAJ Code	—
Weight (g)	0.16

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