

# HRF503A Silicon Schottky Barrier Diode for Rectifying

# HITACHI

Rev. 0  
Oct.1995

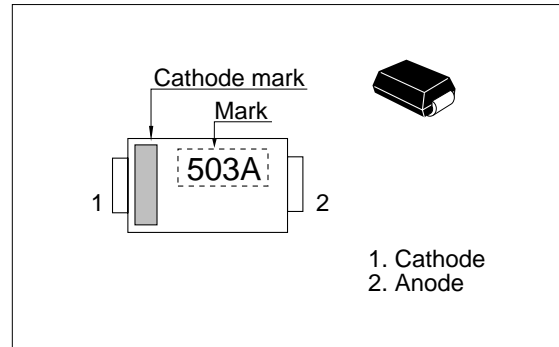
### Features

- 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



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

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

\* See Fig.5 & Fig.7

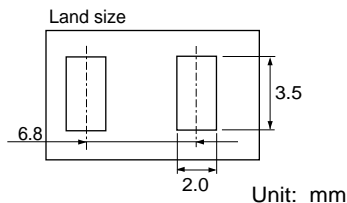
\*\* See Fig.4 & Fig.6

\*\*\* 10msec sine wave 1 pulse

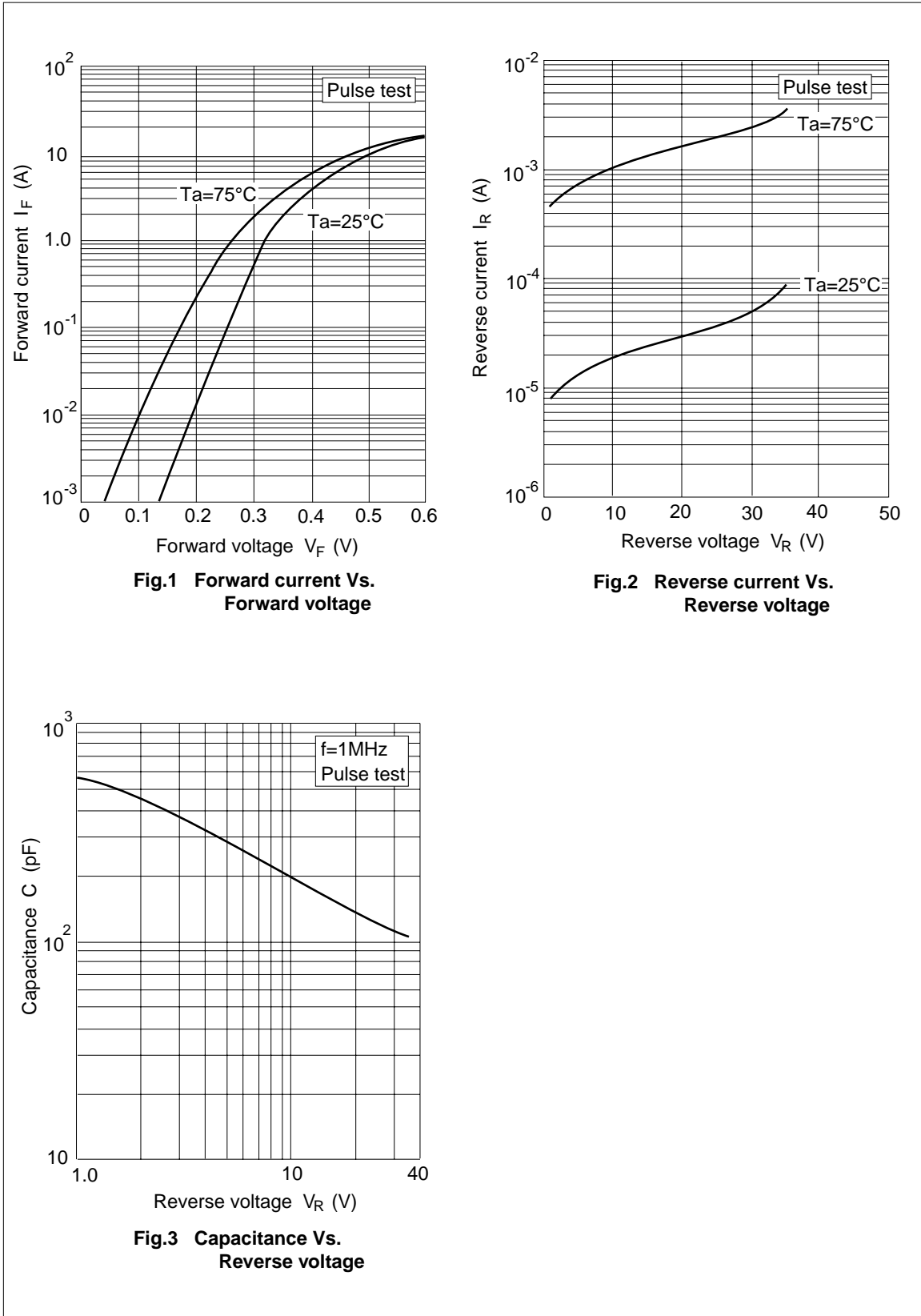
### Electrical Characteristics (Ta = 25°C)

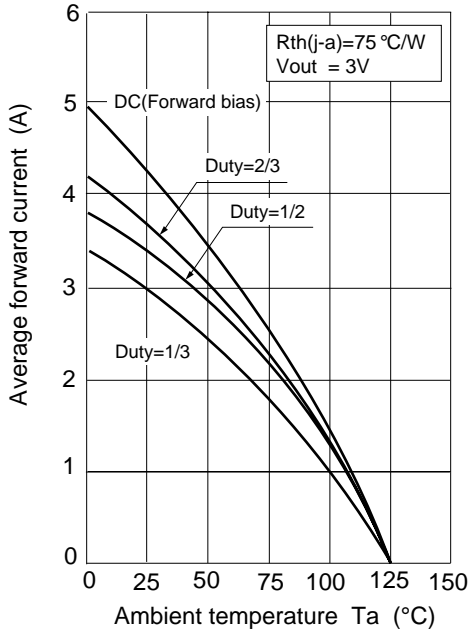
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	—	0.38	—	V	$I_F = 3 A$
	$V_{F2}$	—	—	0.45		$I_F = 5 A$
Reverse current	$I_R$	—	—	1.0	mA	$V_R = 35 V$
Thermal resistance	$R_{th(j-a)}$	—	75	—	°C/W	Glass epoxy substrate *
	$R_{th(j-c)}$	—	35	—	°C/W	

\* Glass epoxy PCB

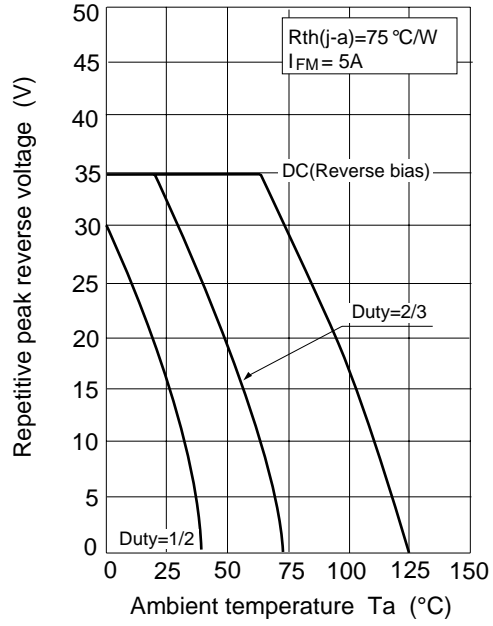


## HRF503A

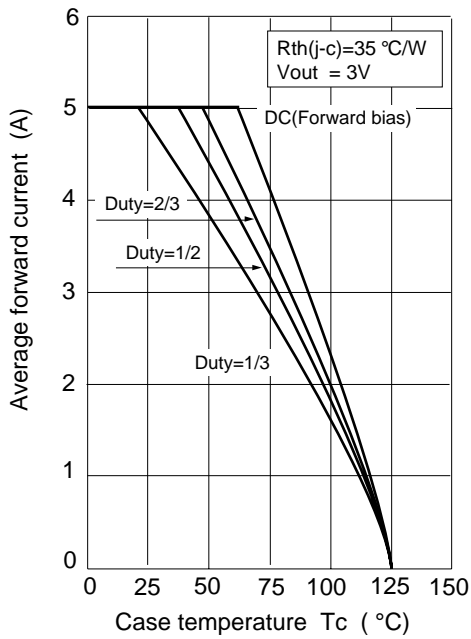




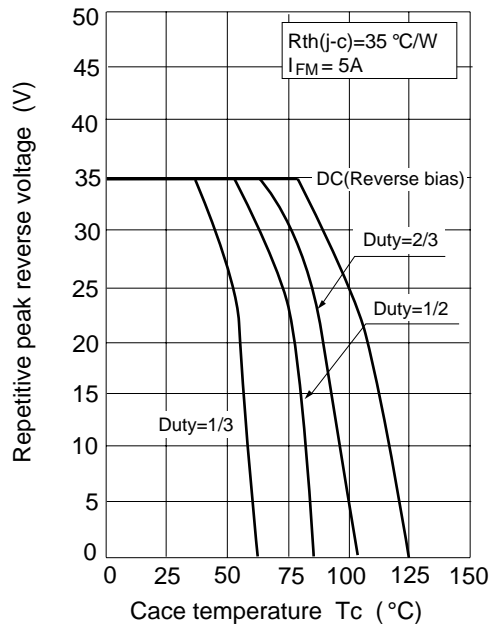
**Fig.4 Average forward current Vs. Ambient temperature**



**Fig.5 Repetitive peak reverse voltage Vs. Ambient temperature**



**Fig.6 Average forward current Vs. Case temperature**



**Fig.7 Repetitive peak reverse voltage Vs. Case temperature**

## HRF503A

### Package Dimensions

Unit: mm

