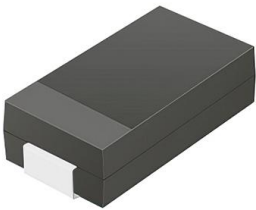


# RS3GB-HF Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	RS3GB-HF-DG
Manufacturer	<a href="#">Comchip Technology</a>
Manufacturer Product Number	RS3GB-HF
Description	DIODE GP 400V 3A SMB/DO-214AA
Detailed Description	Diode 400 V 3A Surface Mount SMB/DO-214AA

This model RS3GB-HF is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

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RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

RS3GB-HF

Series:

-

Technology:

Standard

Current - Average Rectified (Io):

3A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

5  $\mu$ A @ 400 V

Mounting Type:

Surface Mount

Supplier Device Package:

SMB/DO-214AA

Base Product Number:

RS3G

Manufacturer:

Comchip Technology

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

400 V

Voltage - Forward (Vf) (Max) @ If:

1.3 V @ 3 A

Reverse Recovery Time (trr):

150 ns

Capacitance @ Vr, F:

40pF @ 4V, 1MHz

Package / Case:

DO-214AA, SMB

Operating Temperature - Junction:

-55°C ~ 150°C

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# SMD Fast Recovery Rectifiers



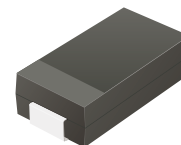
## RS3AB-HF Thru. RS3MB-HF

Reverse Voltage: 50 to 1000 Volts

Forward Current: 3 Amp

RoHS Device

Halogen Free



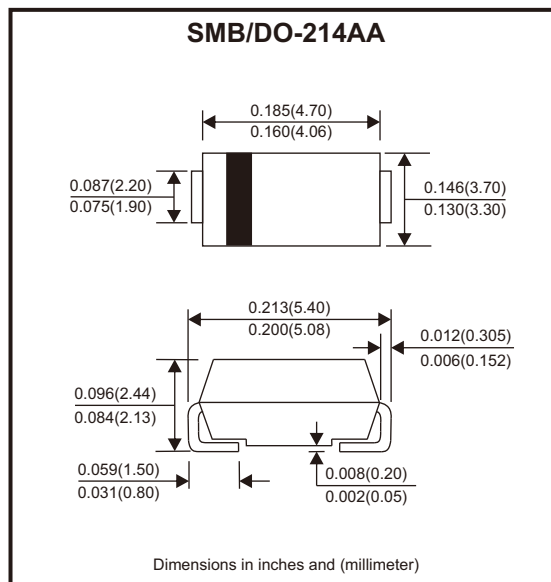
### Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- Easy to pick and place.
- Fast reverse recovery time.

### Mechanical data

- Case: SMB
- Terminals: Solderable per MIL-STD-750, method 2026.

### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbols	RS3AB -HF	RS3BB -HF	RS3DB -HF	RS3GB -HF	RS3JB -HF	RS3KB -HF	RS3MB -HF	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	3							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	90							A
Max. forward voltage at 3A	$V_F$	1.3							V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5 100							$\mu A$
Typical junction capacitance at $V_R = 4V$ , $f = 1MHz$	$C_j$	40							pF
Maximum reverse recovery time (Note 1)	$t_{rr}$	150				250	500		ns
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	48 16							$^{\circ}C/W$
Operating and storage temperature range	$T_j, T_{stg}$	-55 ~ +150							$^{\circ}C$

Notes: 1. Measured with  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{rr} = 0.25A$ .

2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

Company reserves the right to improve product design, functions and reliability without notice.

REV:A

# SMD Fast Recovery Rectifiers



## Rating and Characteristic Curves (RS3AB-HF Thru. RS3MB-HF)

Fig.1 - Max. Average Forward Current Rating

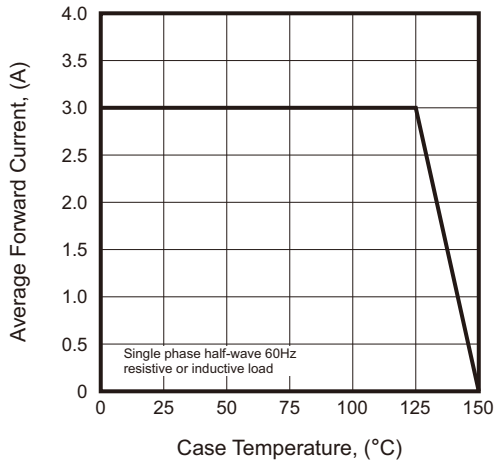


Fig.2 - Typical Reverse Characteristics

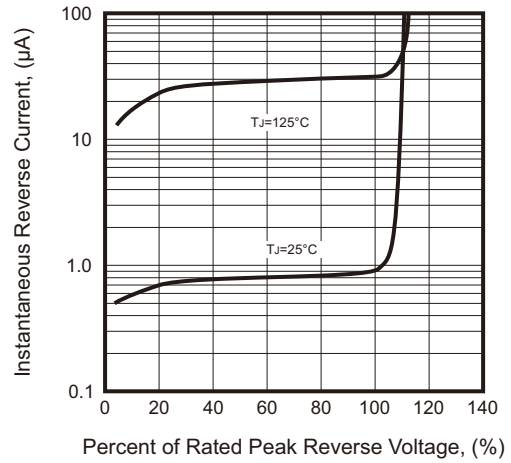


Fig.3 - Typical Instantaneous Forward Characteristic

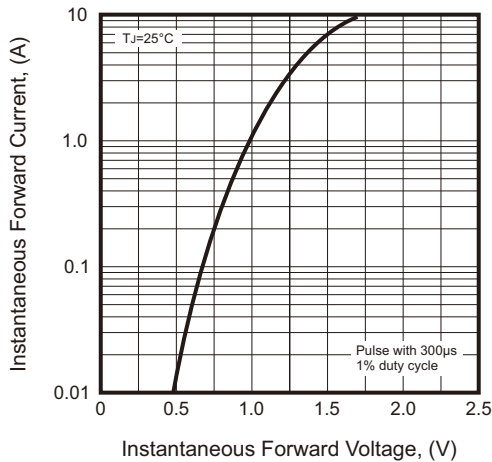


Fig.4 - Typical Junction Capacitance

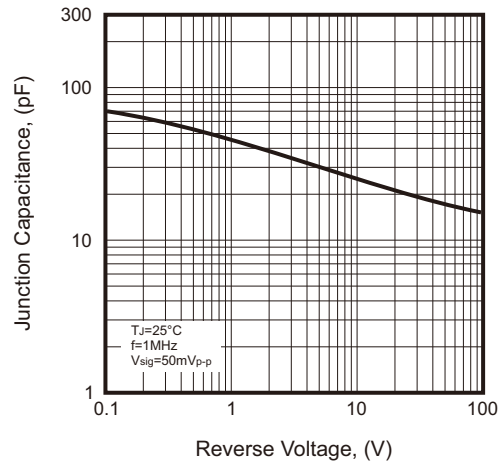
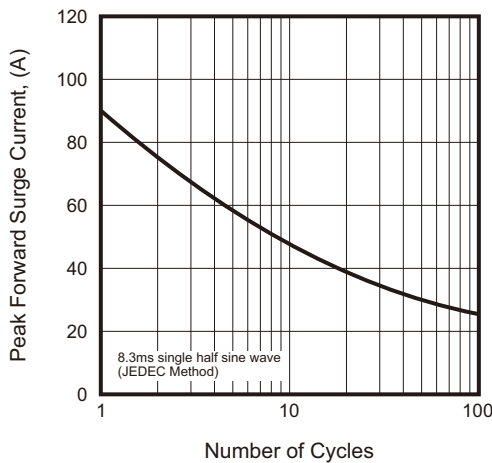


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



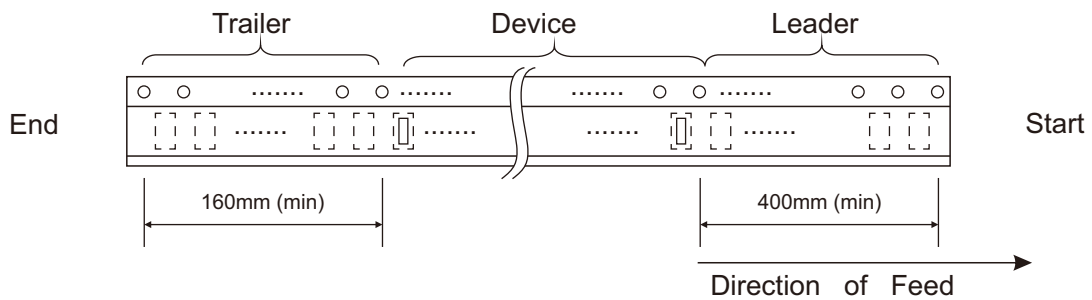
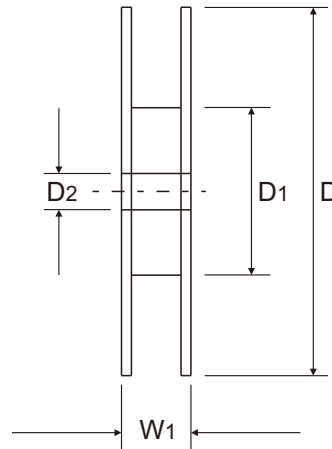
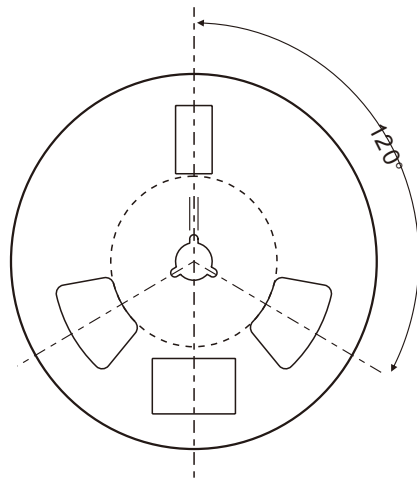
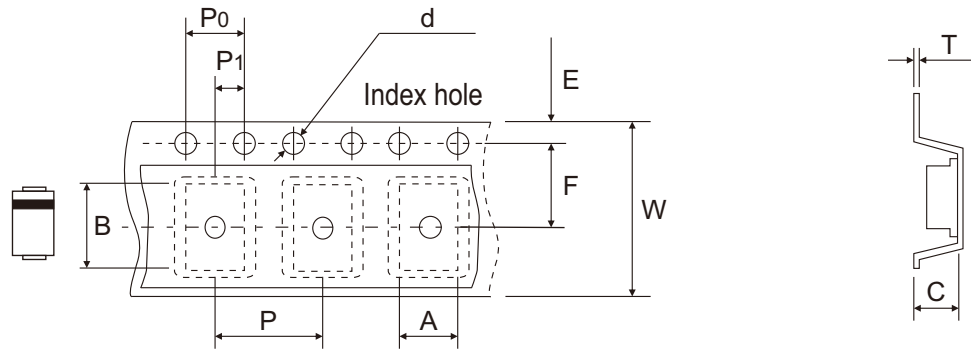
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REV:A

# SMD Fast Recovery Rectifiers



## Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.80 ± 0.10	5.50 + 0.05 - 0.10	2.45 ± 0.05	1.55 ± 0.05	330 ± 2.00	100 ± 1.00	13.00 ± 0.20
	(inch)	0.150 ± 0.004	0.217 + 0.002 - 0.004	0.096 ± 0.002	0.061 ± 0.002	12.992 ± 0.079	3.937 ± 0.039	0.512 ± 0.008

DO-214AA (SMB)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.25 ± 0.05	12.00 ± 0.15	18.00 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.002	0.472 ± 0.006	0.709 + 0.079 - 0.039

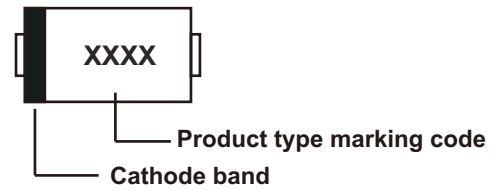
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# SMD Fast Recovery Rectifiers

## Marking Code

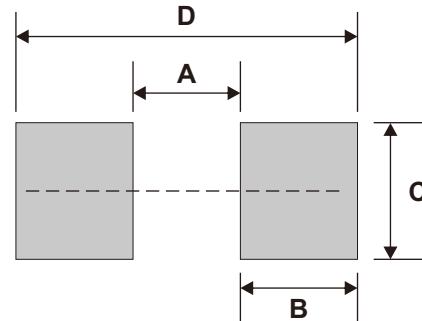
Part Number	Marking Code
RS3AB-HF	RS3A
RS3BB-HF	RS3B
RS3DB-HF	RS3D
RS3GB-HF	RS3G
RS3JB-HF	RS3J
RS3KB-HF	RS3K
RS3MB-HF	RS3M



xxxx = Product type marking code

## Suggested PAD Layout

SIZE	DO-214AA (SMB)	
	(mm)	(inch)
A	2.20	0.087
B	2.40	0.094
C	2.80	0.110
D	7.00	0.276



Note: 1. The pad layout is for reference purpose only.

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AA (SMB)	3,000	13

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