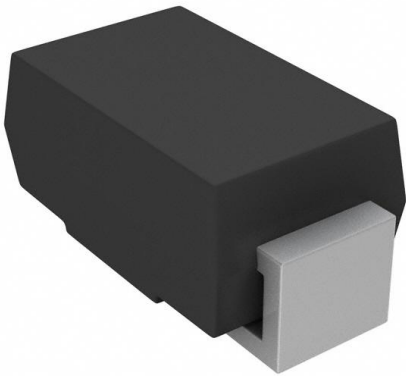


B340A-E3/5AT Datasheet

www.digi-electronics.com



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DiGi Electronics Part Number	B340A-E3/5AT-DG
Manufacturer	Vishay General Semiconductor - Diodes Division
Manufacturer Product Number	B340A-E3/5AT
Description	DIODE SCHOTTKY 40V 3A DO214AC
Detailed Description	Diode 40 V 3A Surface Mount DO-214AC (SMA)

This model B340A-E3/5AT is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

B340A-E3/5AT

Series:

-

Technology:

Schottky

Current - Average Rectified (Io):

3A

Speed:

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

Capacitance @ Vr, F:

-

Package / Case:

DO-214AC, SMA

Operating Temperature - Junction:

-65°C ~ 150°C

Manufacturer:

Vishay General Semiconductor - Diodes Division

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

40 V

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

550 mV @ 3 A

Current - Reverse Leakage @ Vr:

500 µA @ 40 V

Mounting Type:

Surface Mount

Supplier Device Package:

DO-214AC (SMA)

Base Product Number:

B340

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

High Current Density Surface-Mount Schottky Rectifier


SMA (DO-214AC)

Cathode Anode

FEATURES

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

LINKS TO ADDITIONAL RESOURCES


3D Models

PRIMARY CHARACTERISTICS

$I_{F(AV)}$	3.0 A
V_{RRM}	30 V, 40 V
I_{FSM}	65 A
V_F	0.50 V, 0.55 V
T_J max.	150 °C
Package	SMA (DO-214AC)
Circuit configuration	Single

TYPICAL APPLICATIONS

For use in low voltage, high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Note

- These devices are not AEC-Q101 qualified

MECHANICAL DATA
Case: SMA (DO-214AC)

Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 2 whisker test

Polarity: color band denotes cathode end

MAXIMUM RATINGS ($T_A = 25\text{ °C}$ unless otherwise noted)

PARAMETER	SYMBOL	B330LA	B340A	UNIT
Device marking code		B33	B34	
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	V
Maximum RMS voltage	V_{RMS}	21	28	V
Maximum DC blocking voltage	V_{DC}	30	40	V
Maximum average forward rectified current at T_L (fig. 1)	$I_{F(AV)}$	3.0		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	65		A
Voltage rate of change (rated V_R)	dV/dt	10 000		V/ μ s
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150		°C

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ °C}$ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	B330LA	B340A	UNIT
Maximum instantaneous forward voltage	3.0 A	$T_J = 25\text{ °C}$	$V_F^{(1)}$	0.5	0.55	V
Maximum reverse current at rated V_R		$T_J = 25\text{ °C}$	$I_R^{(2)}$	0.5	0.5	mA

Notes

(1) Pulse test: 300 μ s pulse width, 1 % duty cycle

(2) Pulse test: Pulse width \leq 40 ms



THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)				
PARAMETER	SYMBOL	B330LA	B340A	UNIT
Typical thermal resistance	$R_{\theta JA}$ ⁽¹⁾	110		$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$ ⁽¹⁾	28		

Note

⁽¹⁾ Aluminum substrate mounted

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
B330LA-E3/61T	0.064	61T	1800	7" diameter plastic tape and reel
B330LA-E3/5AT	0.064	5AT	7500	13" diameter plastic tape and reel

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

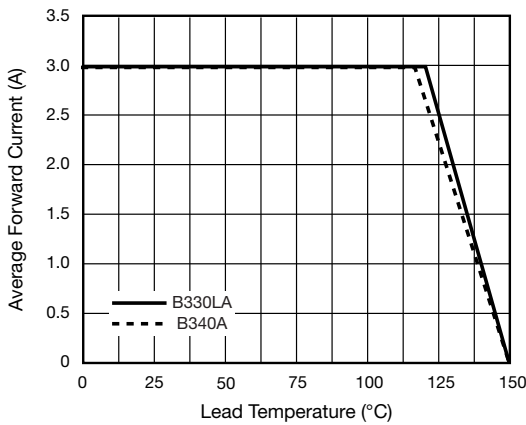


Fig. 1 - Forward Current Derating Curve

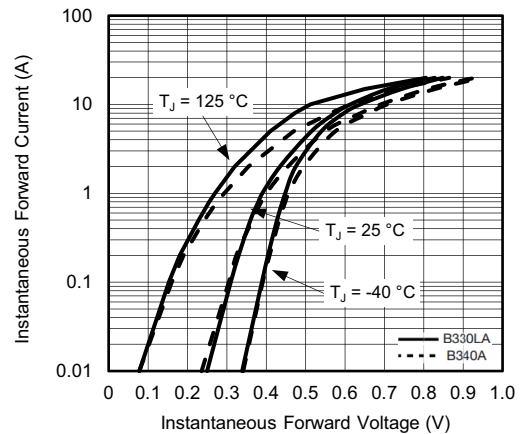


Fig. 3 - Typical Instantaneous Forward Characteristics

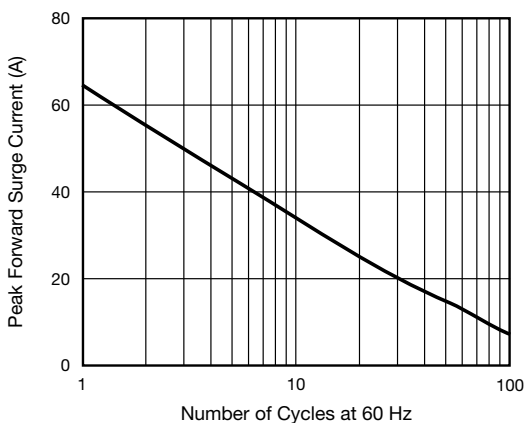


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

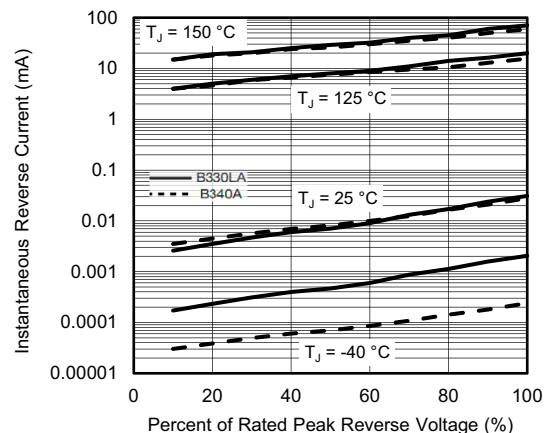


Fig. 4 - Typical Reverse Characteristics

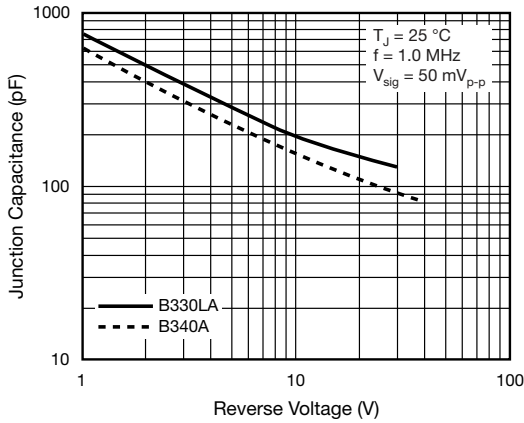
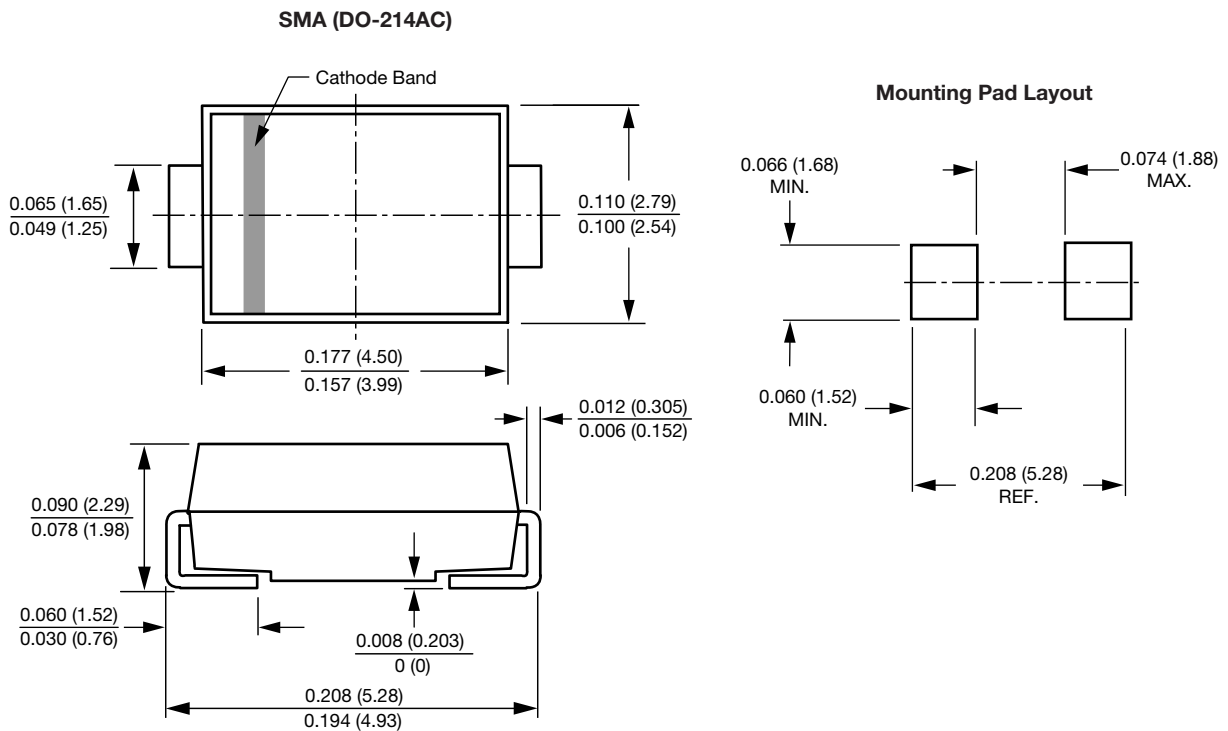


Fig. 5 - Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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