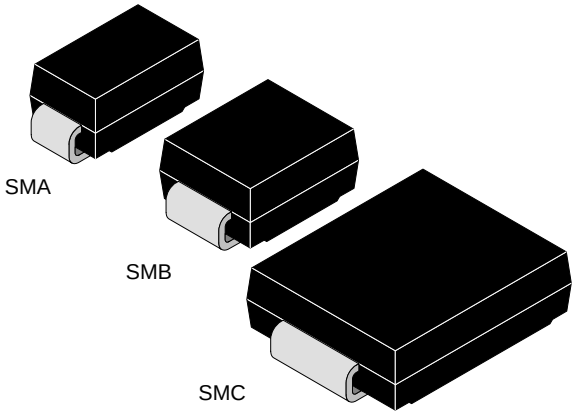
3.0A Surface Mount Schottky Barrier Rectifiers

Features

- Schottky barrier chip
- Guard ring die construction for transient protection
- Ideally suited for automatic assembly
- Low power loss, high efficiency
- Surge overload rating to 100A peak
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- Plastic material – UL recognition flammability classification 94V–0



Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage =Working peak reverse voltage =DC Blocking voltage		B320/A/B	V_{RRM} =V_{RW} =V_R	20	V
		B330/A/B		30	V
		B340/A/B		40	V
		B350/A/B		50	V
		B360/A/B		60	V
Peak forward surge current			I_{FSM}	100	A
Average forward current	T_T=110˚C		I_{FAV}	3	A
Junction and storage temperature range			T_j=T_{stg}	–65...+150	˚C

Electrical Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=3A	B320/A/B–B340/A/B	V_F			0.5	V
		B350/A/B–B360/A/B	V_F			0.7	V
Reverse current	T_A=25˚C		I_R			0.5	mA
	T_A=100˚C		I_R			20	mA
Diode capacitance	V_R=4V, f=1MHz		C_D		300		pF
Thermal resistance junction to ambient	T_L=const.		R_{thJA}		15		K/W

Characteristics (T_j = 25°C unless otherwise specified)

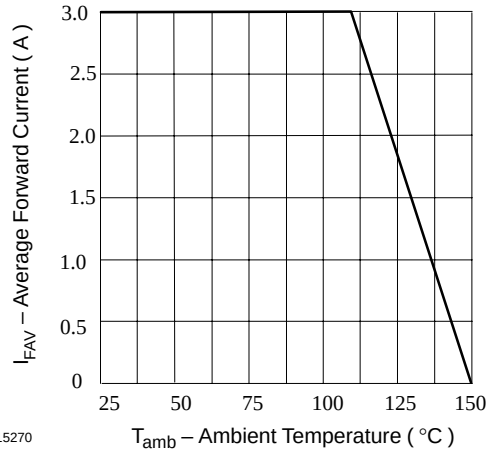


Figure 1. Max. Average Forward Current vs. Ambient Temperature

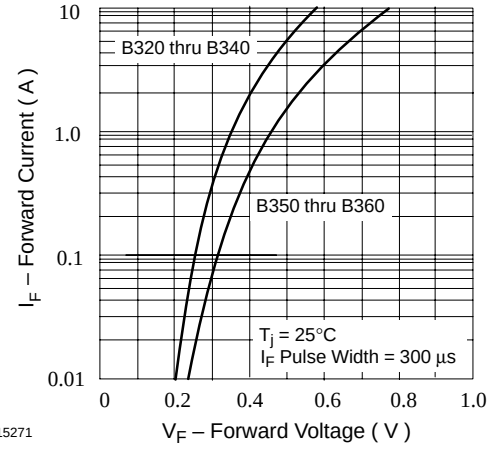


Figure 2. Typ. Forward Current vs. Forward Voltage

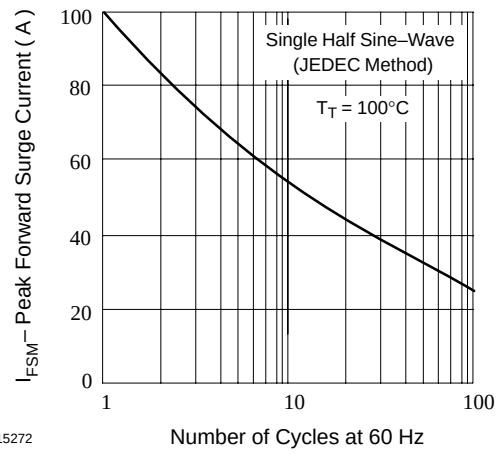


Figure 3. Max. Peak Forward Surge Current vs. Number of Cycles

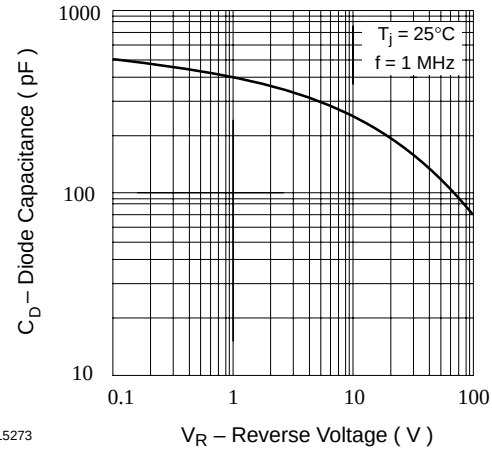


Figure 4. Typ. Diode Capacitance vs. Reverse Voltage

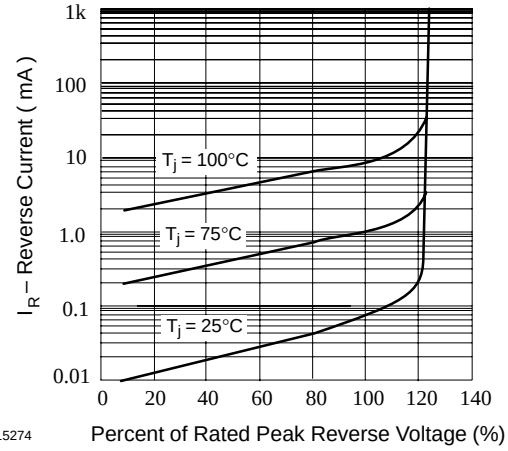
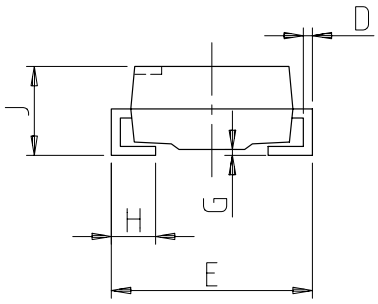
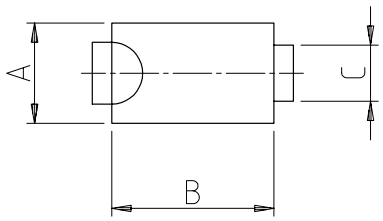


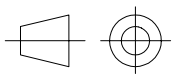
Figure 5. Typ. Reverse Current vs. Percent of Rated Peak Reverse Voltage

Dimensions in mm



"A" Suffix Designates SMA Package
"B" Suffix Designates SMB Package
No Suffix Designates SMC Package





technical drawings
according to DIN
specifications

14462

SMA			SMB		SMC	
Dim	Min	Max	Min	Max	Min	Max
A	2.29	2.92	3.30	3.94	5.59	6.22
B	4.00	4.60	4.06	4.57	6.60	7.11
C	1.27	1.63	1.96	2.21	2.75	3.18
D	0.15	0.31	0.15	0.31	0.15	0.31
E	4.80	5.59	5.00	5.59	7.75	8.13
G	0.10	0.20	0.10	0.20	0.10	0.20
H	0.76	1.52	0.76	1.52	0.76	1.52
J	2.01	2.62	2.00	2.62	2.00	2.62
All Dimensions in mm						

Case: Molded Plastic
Polarity: Cathode Band or Cathode Notch
Approx. Weight: SMA 0.064 grams, SMB 0.093 grams, SMC 0.21 grams
Mounting Position: Any
Marking: Tupe Number

Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.

2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively

2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA

3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

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