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Vishay Semiconductor/Diodes Division
B350A-E3/5AT

For any questions, you can email us directly:
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Surface Mount Schottky Barrier Rectifier

DO-214AC (SMA)

FEATURES

- Low profile package
- Ideal for automated placement
- Low forward voltage drop, low power losses
- High efficiency
- 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

TYPICAL APPLICATIONS

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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	3.0 A
V_{RRM}	50 V, 60 V
I_{FSM}	50 A
V_F at I_F = 3.0 A	0.55 V
T_J max.	150 °C
Package	DO-214AC (SMA)
Diode variations	Single die

MECHANICAL DATA

Case: DO-214AC (SMA)
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 the cathode end

MAXIMUM RATINGS (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	B350A	B360A	UNIT
Device marking code		B35	B36	
Maximum repetitive peak reverse voltage	V_{RRM}	50	60	V
Maximum average forward rectified current (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}	50		A
Voltage rate of change (rated V_R)	dV/dt	10 000		V/µs
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150		°C

ELECTRICAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT
Maximum instantaneous forward voltage	I_F = 3.0 A	T_A = 25 °C	V_F (1)	0.64	0.72	V
		T_A = 125 °C		0.55	0.62	
Maximum reverse current	Rated V_R	T_A = 25 °C	I_R (2)	-	200	μA
		T_A = 125 °C		2.9	10	mA
Typical junction capacitance	4.0 V, 1 MHz		C_J	145	-	pF

Notes
(1) Pulse test: 300 μs pulse width, 1 % duty cycle
(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T_A = 25 °C unless otherwise noted)				
PARAMETER	SYMBOL	B350A	B360A	UNIT
Typical thermal resistance	$R_{\theta JA}$ (1)	72		°C/W
	$R_{\theta JL}$ (1)	12		

Note
(1) PCB. mounted with 0.32" x 0.32" (8 mm x 8 mm) copper pad areas. T_L measured at lead terminal mount.

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
B360A-E3/61T	0.064	61T	1800	7" diameter plastic tape and reel
B360A-E3/5AT	0.064	5AT	7500	13" diameter plastic tape and reel

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

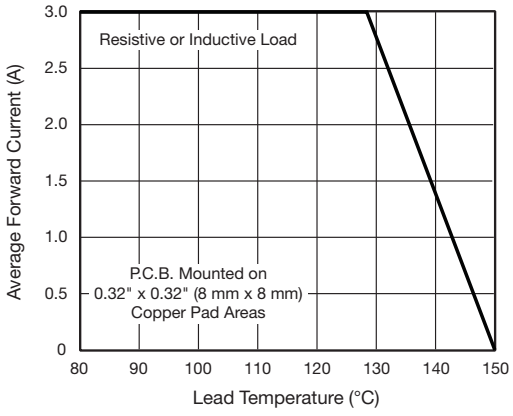


Fig. 1 - Forward Current Derating Curve

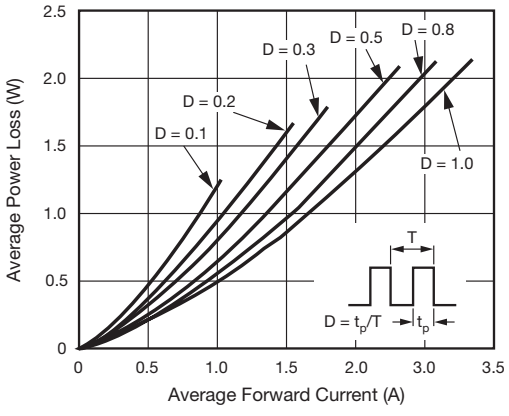


Fig. 2 - Forward Power Loss Characteristics

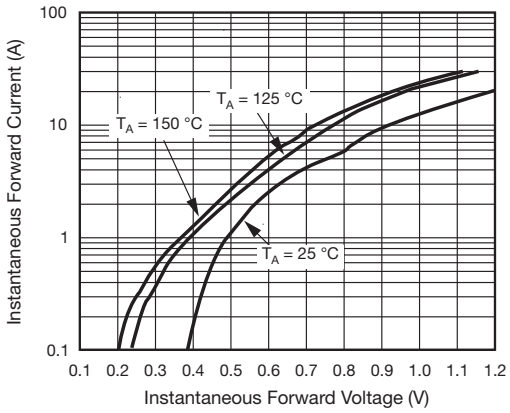


Fig. 3 - Typical Instantaneous Forward Characteristics

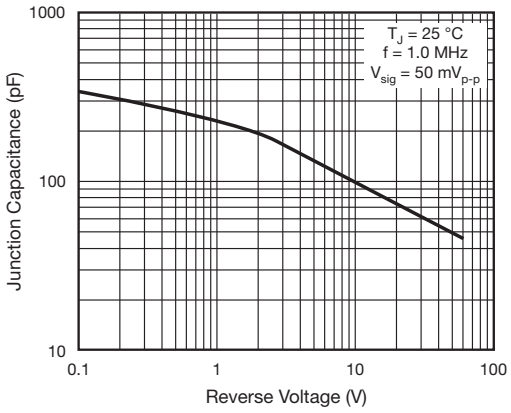


Fig. 5 - Typical Junction Capacitance

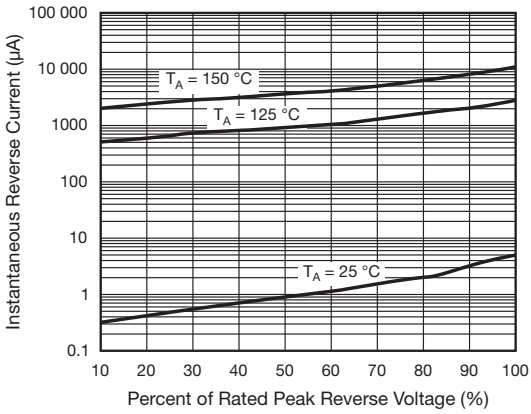
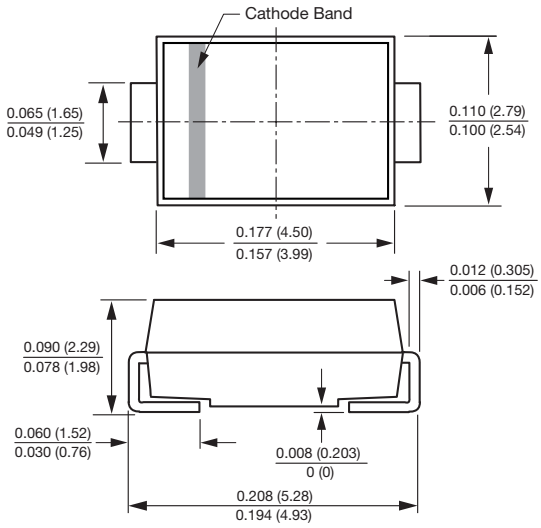


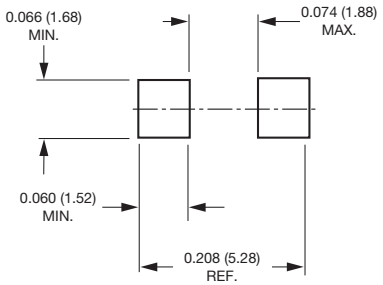
Fig. 4 - Typical Reverse Characteristics

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-214AC (SMA)



Mounting Pad Layout



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