

SCHOTTKY BARRIER RECTIFIERS

APD340

Features

- Low Forward Voltage Drop
- Very Small Conduction Losses
- High Surge Capability
- Surge Overload Rating up to 80A Peak Value

Applications

- Low Voltage High Frequency Inverters
- DC-DC Converters
- Free Wheeling
- Polarity Protection

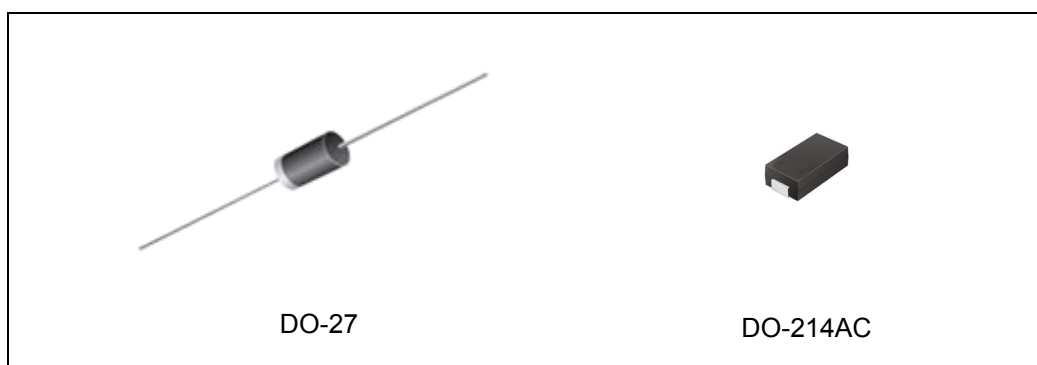


Figure 1. Package Types of APD340

Pin Configuration

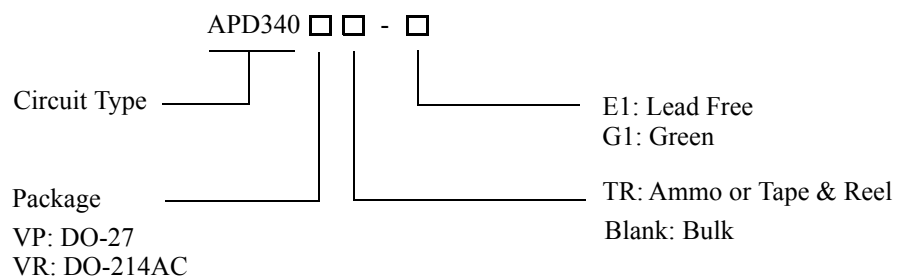
VP Package
(DO-27)

Cathod  Anode

VR Package
(DO-214AC)

Cathod  Anode

Figure 2. Pin Configuration of APD340

**SCHOTTKY BARRIER RECTIFIERS****APD340****Ordering Information**

Package	Part Number		Marking ID		Packing Type
	Lead Free	Green	Lead Free	Green	
DO-27	APD340VP-E1	APD340VP-G1	D340VP	340VPG	Bulk
	APD340VPTR-E1	APD340VPTR-G1	D340VP	340VPG	Ammo
DO-214AC		APD340VRTR-G1		340VRG	Tape & Reel

BCD Semiconductor's Pb-free products, as designated with "E1" suffix in the part number, are RoHS compliant. Products with "G1" suffix are available in green packages.

**SCHOTTKY BARRIER RECTIFIERS****APD340****Absolute Maximum Ratings** ($T_A=25^{\circ}\text{C}$, unless otherwise noted) (Note 1)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Average Rectified Forward Current 0.375 " (9.5mm) Lead Length	$I_{F(AV)}$	3.0	A
Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half Sine-Wave on Rated Load	I_{FSM}	80	A
Operating Junction Temperature Range	T_J	-50 to 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-50 to 150	$^{\circ}\text{C}$

Note 1: Stresses greater than those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under "Recommended Operating Conditions" is not implied. Exposure to "Absolute Maximum Ratings" for extended periods may affect device reliability.



SCHOTTKY BARRIER RECTIFIERS

APD340

Thermal Characteristics ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Values	Unit
Typical Thermal Resistance	θ_{JA}	DO-27	40
		DO-214AC	75
			$^{\circ}\text{C}/\text{W}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Values	Unit
Forward Voltage @ $I_F=3.0\text{A}$	V_F	0.5	V
Reverse Current @ Rated V_R (Note 3)	I_R	$T_A=25^{\circ}\text{C}$	0.5
		$T_A=100^{\circ}\text{C}$	10
			mA

Note 2: Pulse Test: 300 μs pulse width, 1.0% duty cycle.

Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

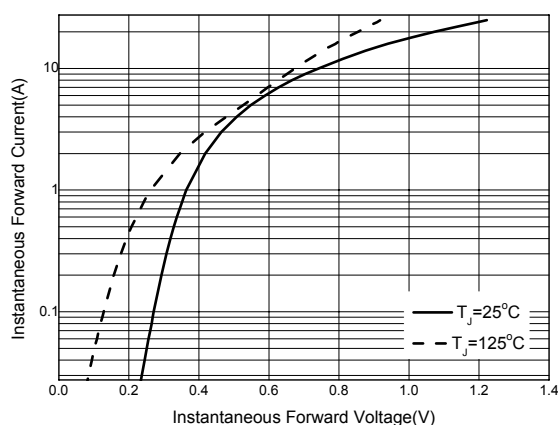


Figure 3. Typical Instantaneous Forward Characteristics

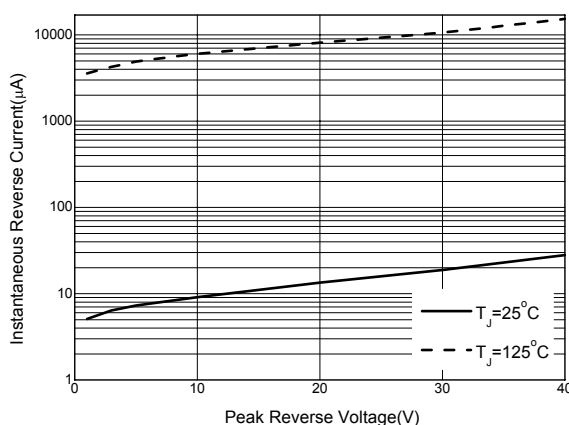


Figure 4. Typical Reverse Characteristics



Typical Performance Characteristics (Continued)

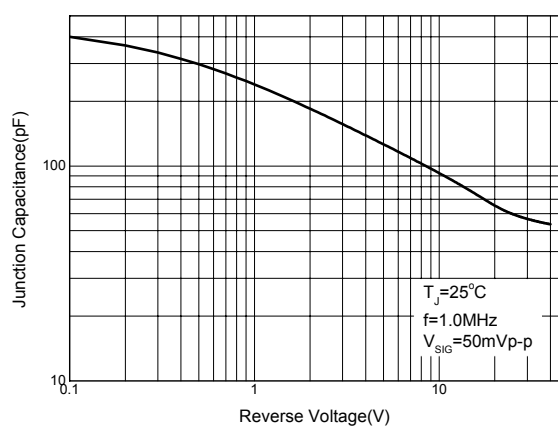


Figure 5. Typical Junction Capacitance

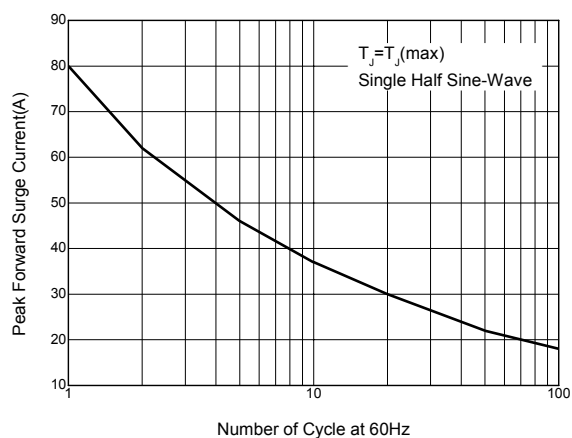


Figure 6. Maximum Non-Repetitive Peak Forward Surge Current

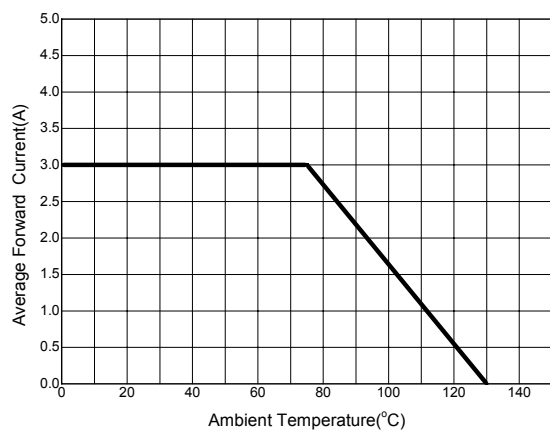
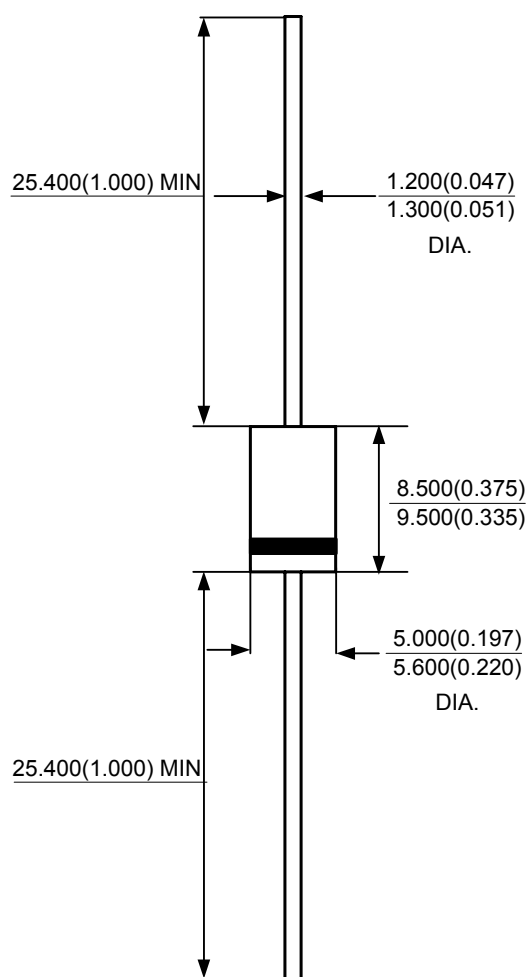
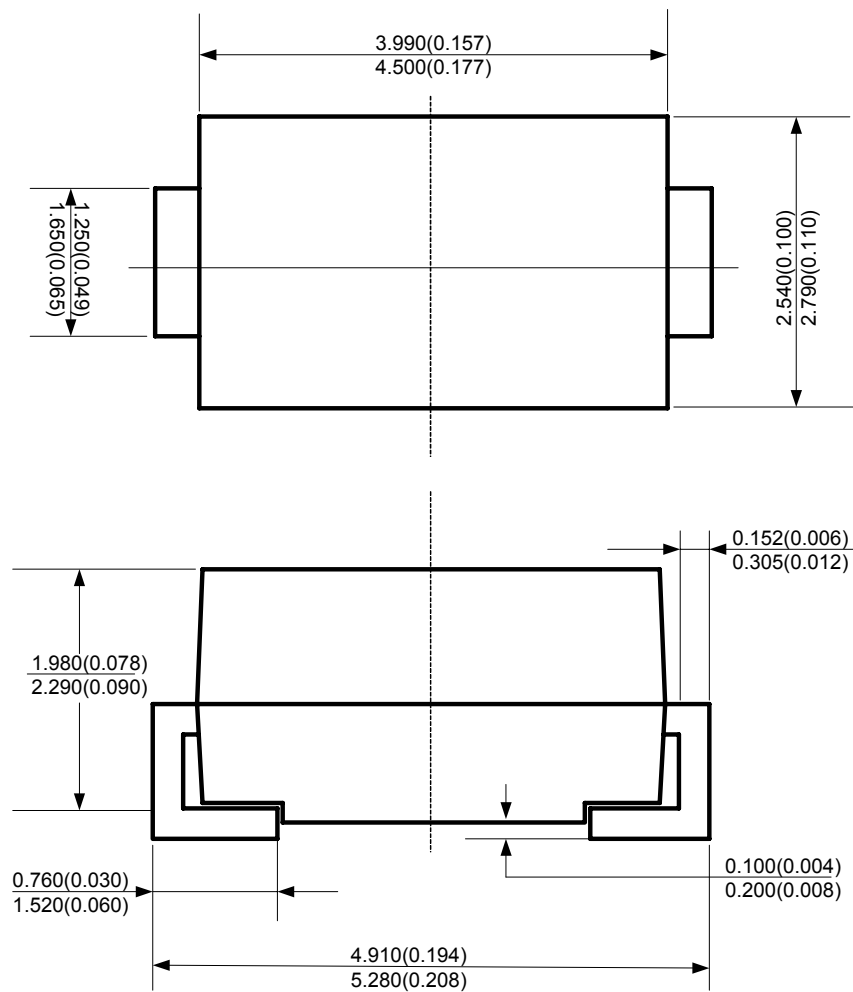


Figure 7. Forward Current Derating Curves

**SCHOTTKY BARRIER RECTIFIERS****APD340****Mechanical Dimensions****DO-27****Unit: mm(inch)**

**SCHOTTKY BARRIER RECTIFIERS****APD340****Mechanical Dimensions (Continued)****DO-214AC****Unit: mm(inch)**



BCD Semiconductor Manufacturing Limited

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