

Features

- Low Forward Voltage Drop
- Very Small Conduction Losses
- High Surge Capability
- Surge Overload Rating up to 50A Peak Value

Applications

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



DO-41



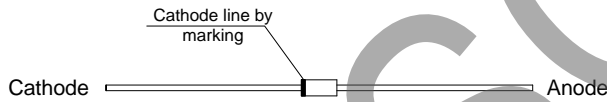
DO-15



DO-214AC

Pin Assignments

(Top View)



DO-41/DO-15

(Top View)

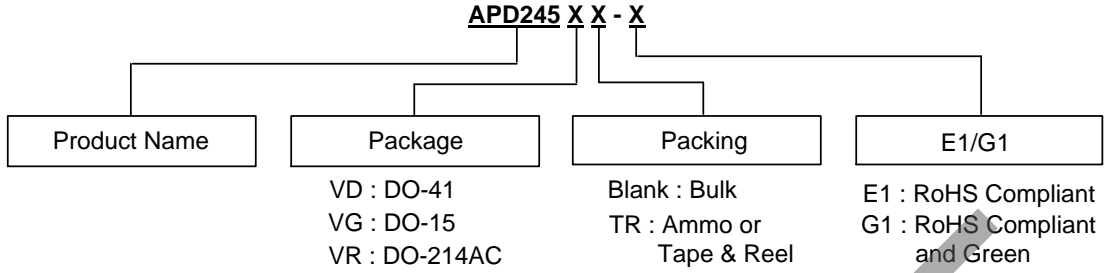


DO-214AC

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Ordering Information



Package	Temperature Range	Part Number	Marking ID	Packing
DO-41	-65 to +125°C	APD245VD-E1	D245VD	Bulk
		APD245VD-G1	245VDG	Bulk
		APD245VDTR-E1	D245VD	Ammo
		APD245VDTR-G1	245VDG	Ammo
DO-15	-65 to +125°C	APD245VG-E1	D245VG	Bulk
		APD245VG-G1	245VGG	Bulk
		APD245VGTR-E1	D245VG	Ammo
		APD245VGTR-G1	245VGG	Ammo
DO-214AC	-65 to +125°C	APD245VRTR-G1	245VRG	Tape & Reel

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Absolute Maximum Ratings ($T_A = +25^\circ\text{C}$, unless otherwise noted.) (Note 1)

Characteristic	Symbol	Rating	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum RMS Voltage	V_{RMS}	32	V
Average Rectified Forward Current 0.375" (9.5mm) Lead Length	$I_{F(AV)}$	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave on Rated Load	I_{FSM}	50	A
Operating Junction Temperature Range	T_J	-65 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 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.

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

Characteristic	Symbol	Rating		Unit
		DO-41/DO-15	DO-214AC	
Typical Thermal Resistance	$R_{\theta JA}$	52	90	$^\circ\text{C/W}$

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

Characteristic	Symbol	Rating	Unit
Forward Voltage @ $I_F = 2.0\text{A}$	V_F	0.5	V
Reverse Current @ Rated V_R (Note 2)	I_R	$T_A = +25^\circ\text{C}$	0.5
		$T_A = +100^\circ\text{C}$	10

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

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

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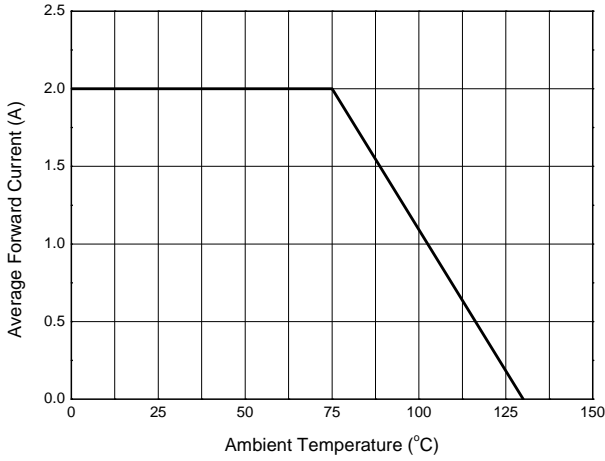


Figure 1. Forward Current Derating Curve

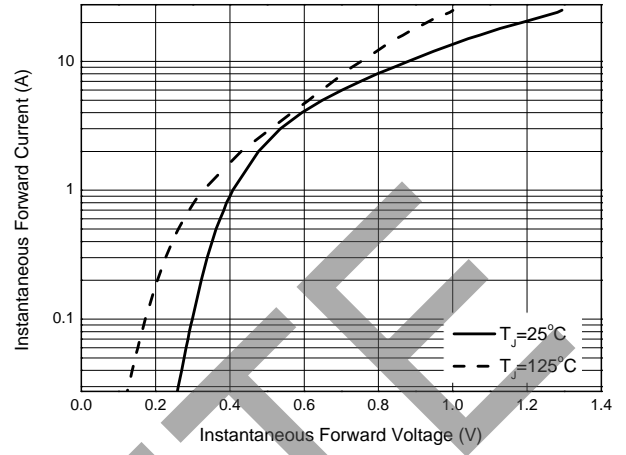


Figure 2. Typical Instantaneous Forward Characteristics

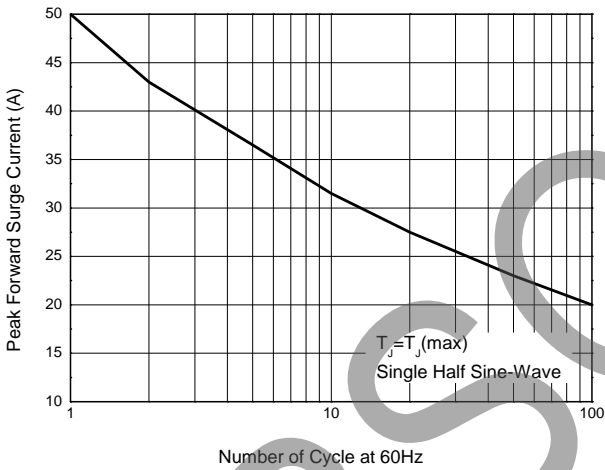


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current

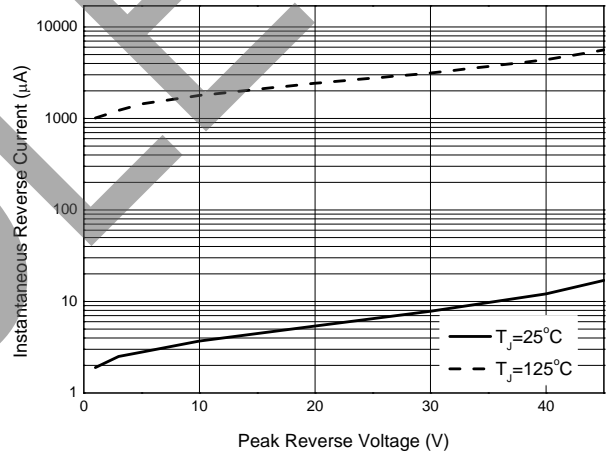


Figure 4. Typical Reverse Characteristics

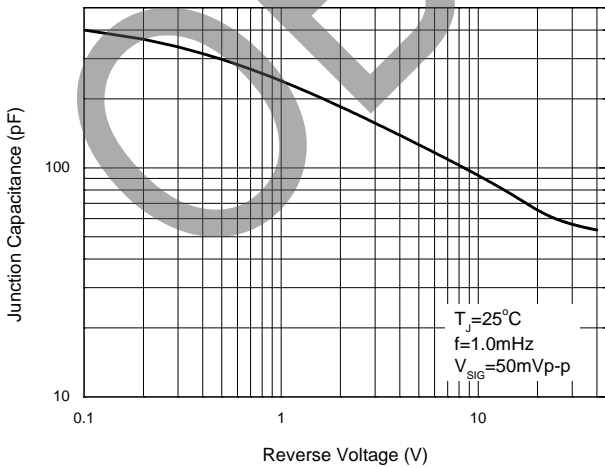
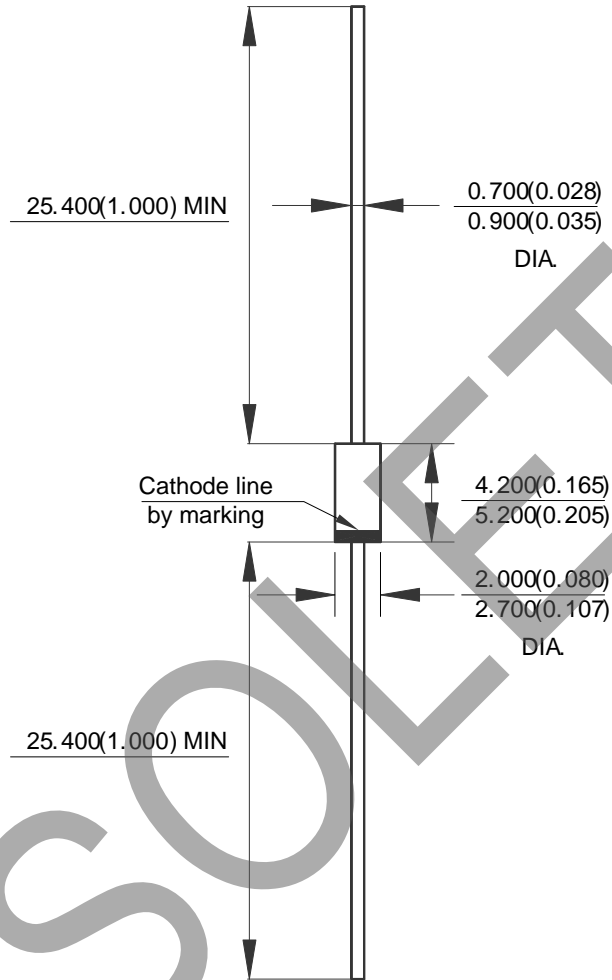


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (All dimensions in mm(inch).)

(1) Package Type: DO-41

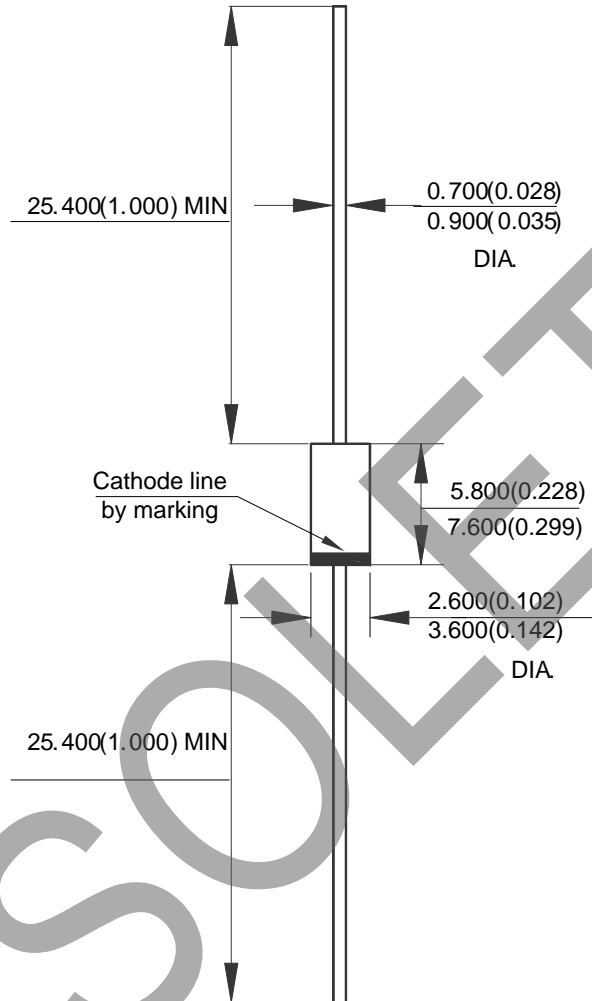


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Package Outline Dimensions (Cont. All dimensions in mm(inch).)

(2) Package Type: DO-15

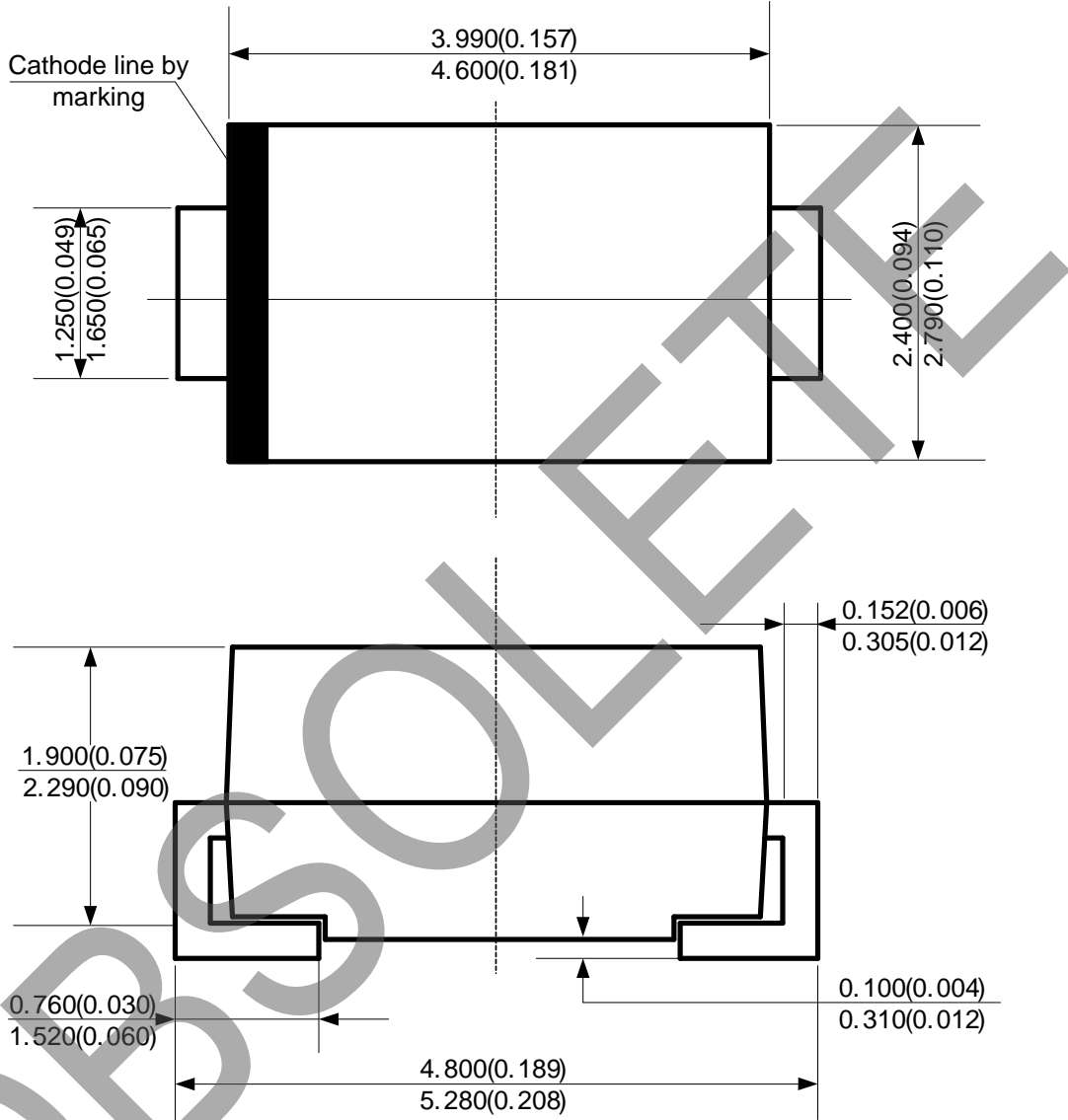


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Package Outline Dimensions (Cont. All dimensions in mm(inch).)

(3) Package Type: DO-214AC



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