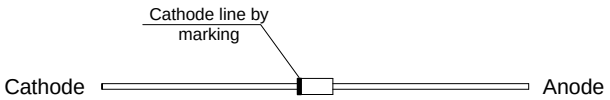
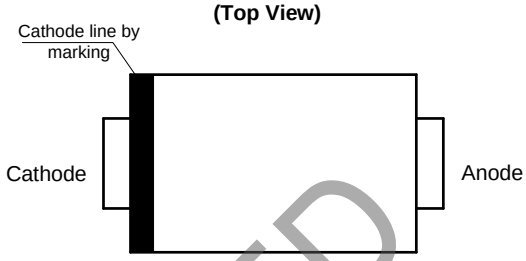
Pin Assignments

(Top View)



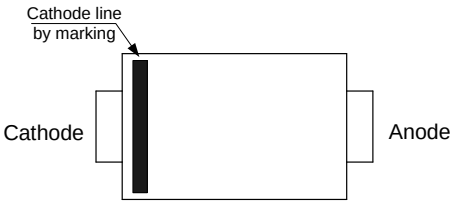
DO-15

(Top View)



DO-214AC

(Top View)



SOD-123

Ordering Information

APD240 XX XX - XX

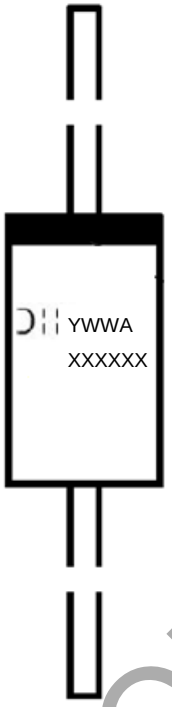
Product Name	Package	Packing	E1/G1
	VG: DO-15 VR: DO-214AC KD: SOD-123	Blank: Bulk TR: Tape & Reel	E1 : RoHS Compliant G1 : RoHS Compliant and Green

Package	Temperature Range	Part Number	Marking ID	Packing	Status	Replacement
DO-15	-65 to +125°C	APD240VG-E1	D240VG	500/Bulk	NRND	—
DO-214AC	-65 to +125°C	APD240VRTR-G1	240VRG	7500/Tape & Reel	NRND	B240A-13-F
SOD-123	-65 to +125°C	APD240KDTR-G1	G11	3000/Tape & Reel	NRND	B240S1F-7

Marking Information

(1) DO-15

(Top View)



First Line: Logo and Date Code
Y: Year
WW: Work Week of Molding
A: Assembly House Code
Second Line: Marking ID
(See Ordering Information)

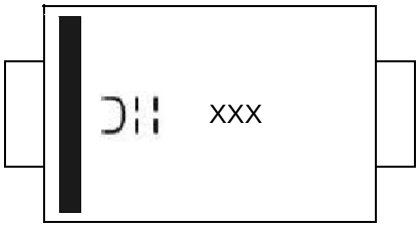
(2) DO-214AC

(Top View)

First Line: Logo and Date Code
Y: Year
WW: Work Week of Molding
A: Assembly House Code
Second Line: Marking ID
(See Ordering Information)

(3) SOD-123

(Top View)



First Line: Logo and Marking ID
(See Ordering Information)

Maximum Ratings (T_A = +25°C, unless otherwise noted.) (Note 4)

Characteristic	Symbol	Rating	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 (See Figure 1)	$I_{F(AV)}$	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 (Note 5)	T_J	-65 to +125	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Notes: 4. Stresses greater than those listed under "*Absolute Maximum Ratings*" can 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 can affect device reliability.

5. The heat generated must be less than the thermal conductivity from Junction to Ambient: $dP_D/dT_J < 1/\theta_{JA}$.

Thermal Characteristics (T_A = +25°C, unless otherwise noted.)

Characteristic	Symbol	Rating		Unit
Typical Thermal Resistance (Note 6)	$R_{\theta JA}$	DO-15	52	°C/W
		DO-214AC	90	
		SOD-123	200	

Note 6: Device mounted on heat sink, with minimum recommended pad layout per http://www.diodes.com/package-outlines.html.

Electrical Characteristics (T_A = +25°C, unless otherwise noted.)

Characteristic	Symbol	Rating	Unit	Test Condition
Forward Voltage @ I_F = 2.0A	V_F	0.5	V	—
Reverse Current @ Rated V_R (Note 7)	I_R	0.5	mA	T_A = +25°C
		10		T_A = +100°C

Note 7: Short duration pulse test used to minimize self-heating effect, Pulse Test: 300µs pulse width, 1.0% duty cycle.

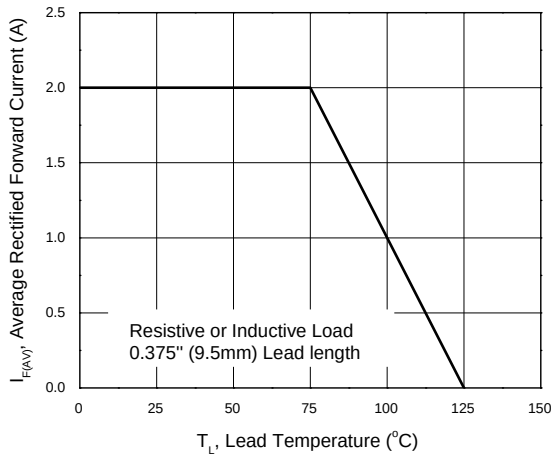


Figure 1. Forward Current Derating Curve

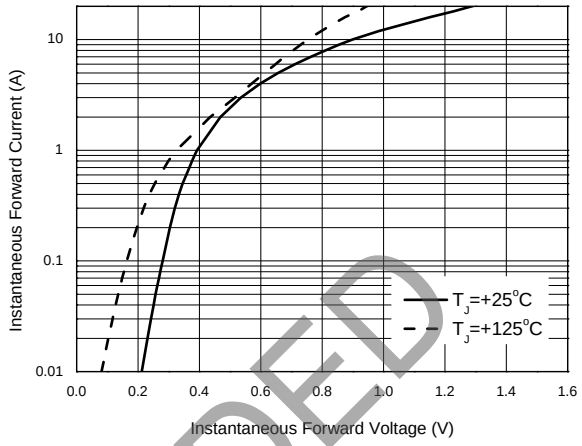


Figure 2. Typical Instantaneous Forward Characteristics

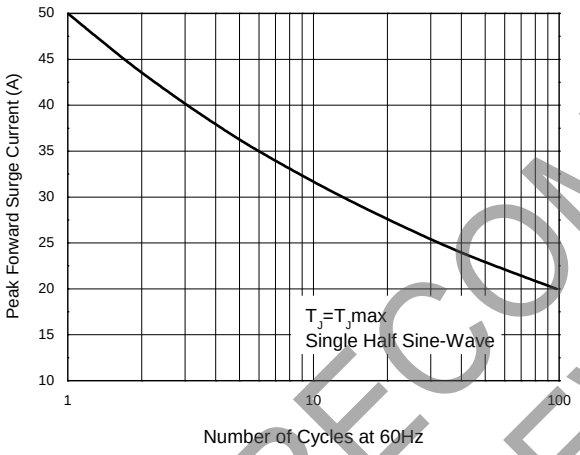


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current

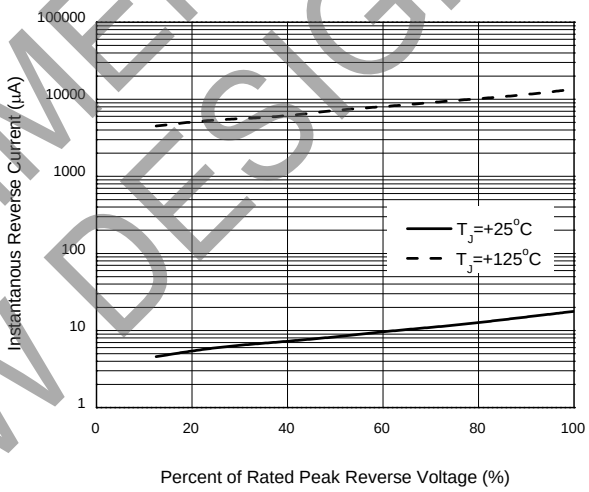


Figure 4. Typical Reverse Characteristics

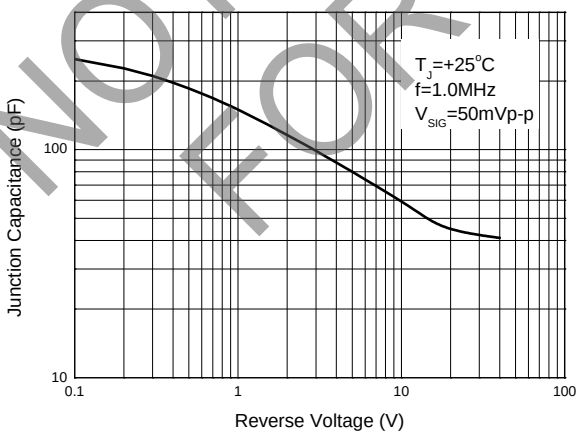
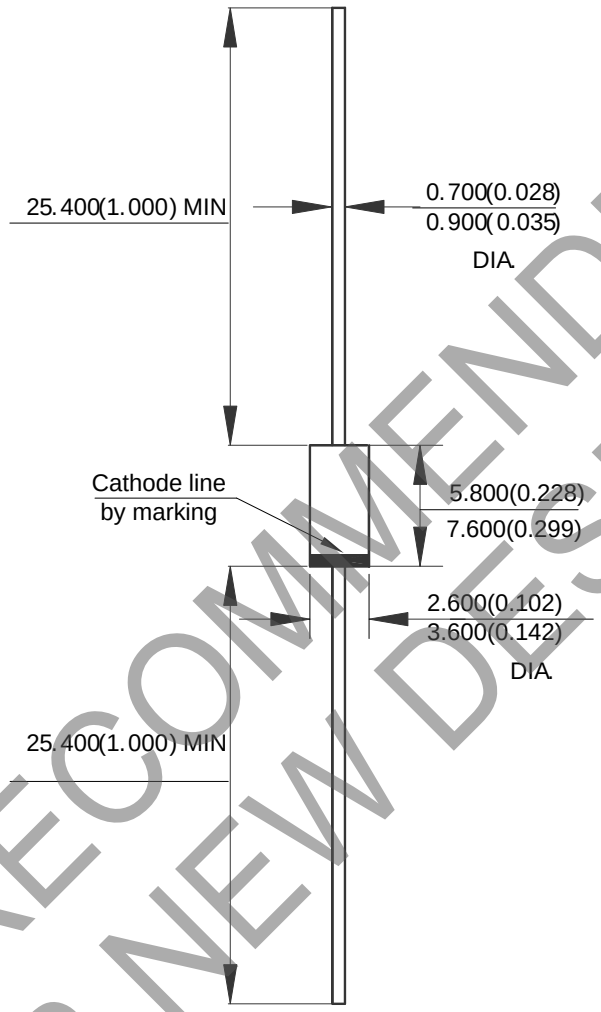


Figure 5. Typical Junction Capacitance

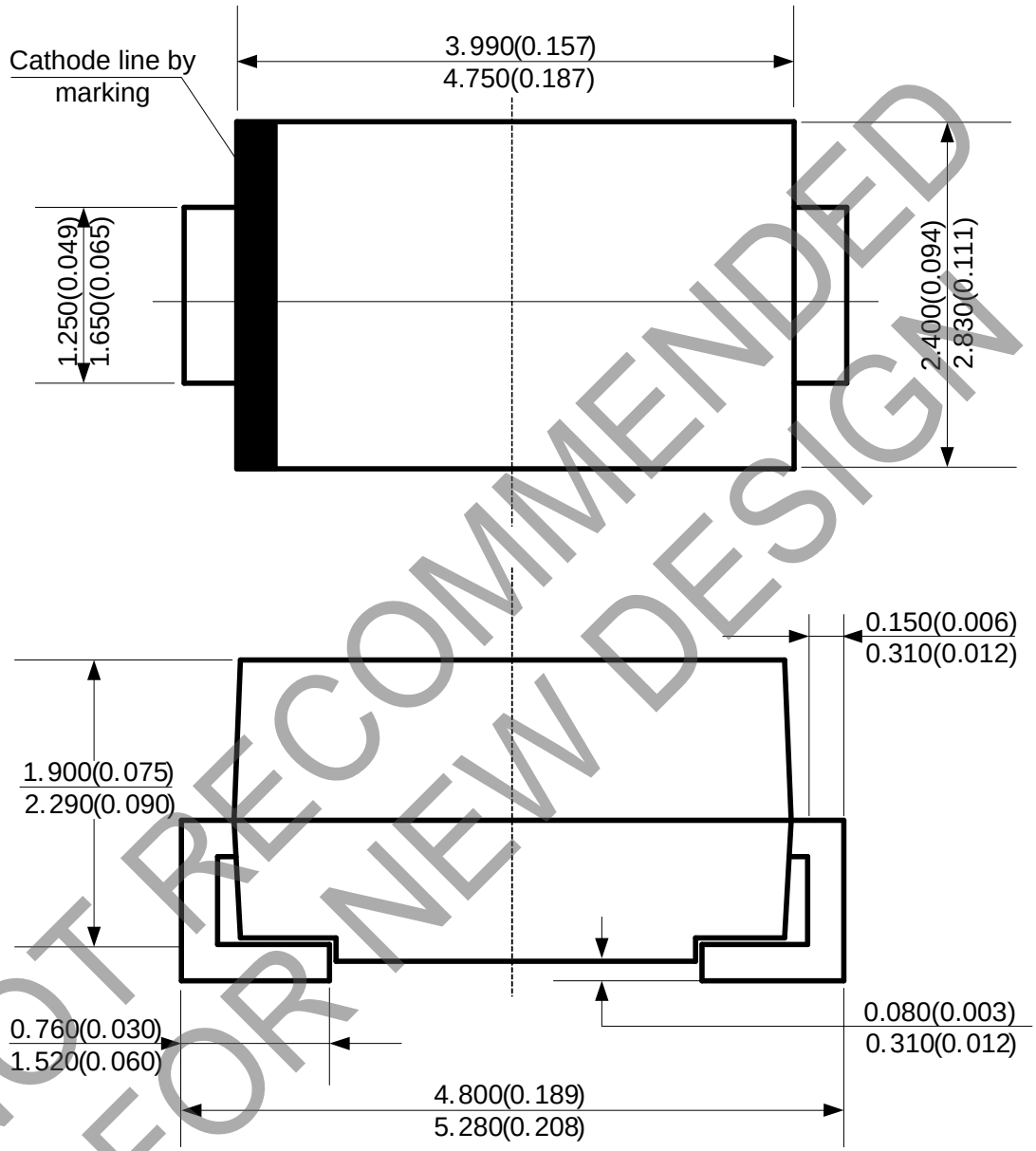
Package Outline Dimensions (All dimensions in mm(inch).)

(1) Package Type: DO-15



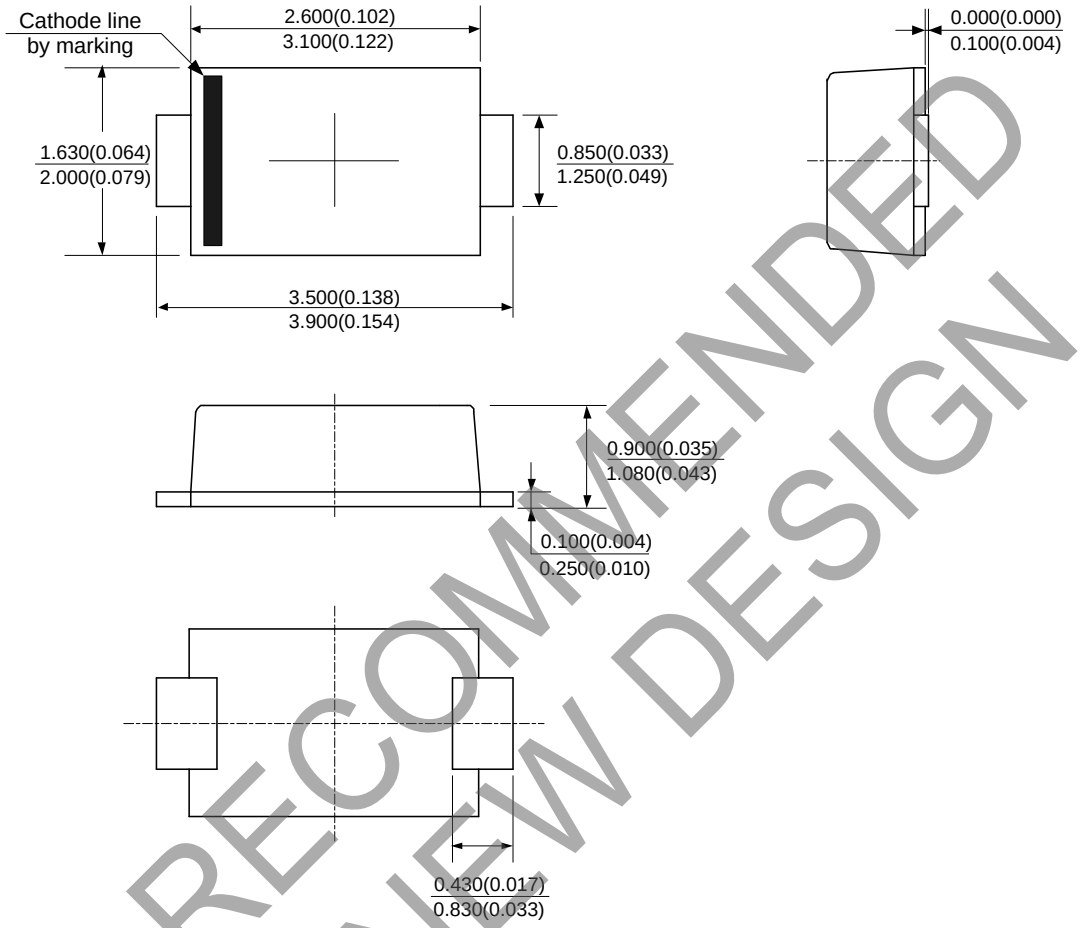
Package Outline Dimensions (All dimensions in mm(inch).) (continued)

(2) Package Type: DO-214AC



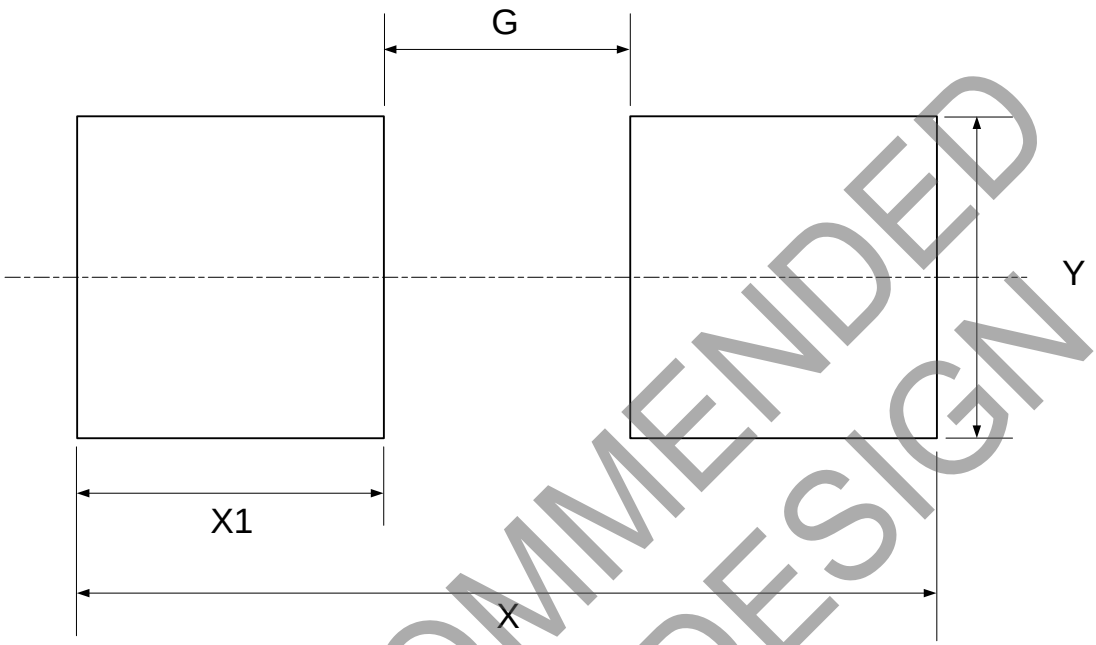
Package Outline Dimensions (All dimensions in mm(inch).) (continued)

(3) Package Type: SOD-123



Suggested Pad Layout

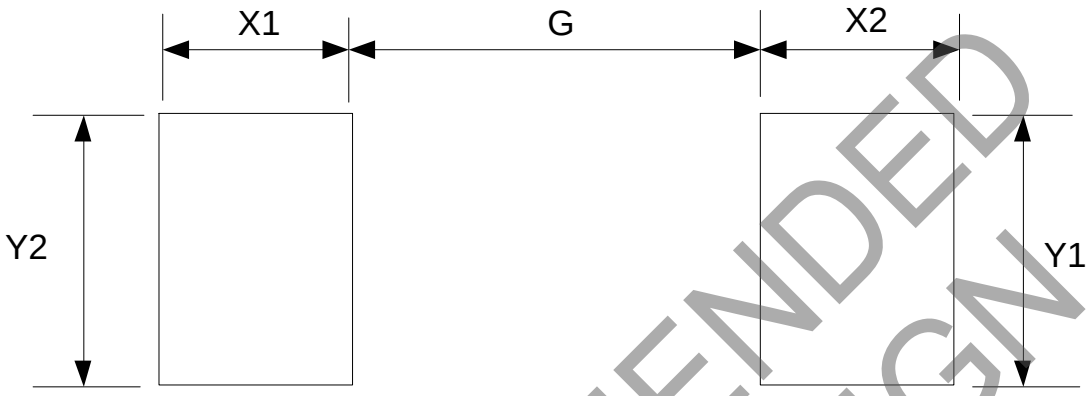
(1) Package Type: DO-214AC



Dimensions	Y (mm)/(inch)	X1 (mm)/(inch)	G (mm)/(inch)	X (mm)/(inch)
Value	2.100/0.083	2.000/0.079	1.600/0.063	5.600/0.220

Suggested Pad Layout (continued)

(2) Package Type: SOD-123



Dimensions	G (mm)/(inch)	X1 (mm)/(inch)	X2 (mm)/(inch)	Y1 (mm)/(inch)	Y2 (mm)/(inch)
Value	2.100/0.083	1.000/0.039	1.000/0.039	1.400/0.055	1.400/0.055

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