

SILICON DIODE ALTERNATING CURRENT BIDIRECTIONAL THYRISTORS

Product Summary

V_{BO} (V)	$I_{T(RMS)}$ (A)	V_{TM} (V) @ $I_T = 1A$	I_H (mA)
110	0.6	1.5	100

Mechanical Data

- Package: DO-219AA
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity Indicator: As Marked on the Body
- Weight: 0.016 grams (Approximate)

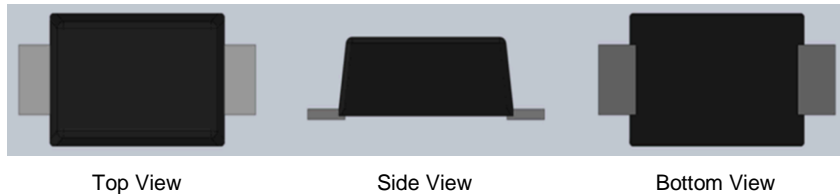
Features

- Glass Passivation Insures Reliable Operation
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

Application

- High pressure sodium vapor lighting
- Strobes and flashers
- Igniters
- High voltage regulators
- Pulse generators

DO-219AA

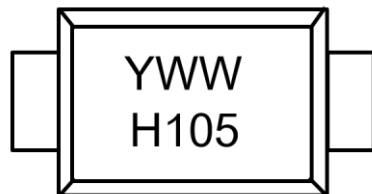


Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
H105E-7	DO-219AA	3000	Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
 2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
 3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 4. For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Marking Information



H105 = Product Type Marking Code
 YWW = Date Code Marking
 Y = Last Digit of Year (ex: 3 = 2023)
 WW = Week Code (01 to 53)

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Test Conditions	Symbol	Value	Unit
Peak Repetitive Off-State Voltage	T _J = -40 to +125°C, Sine Wave, 50Hz to 60Hz	V _{DRM} V _{RRM}	90	V
On-State RMS Current	All Conduction Angles	I _{T(RMS)}	0.6	A
Pulse On-State Current	T _A = +25°C, Pulse Width = 10μs Sine Wave, Repetitive Peak Value, f = 5Hz	I _{TRM}	120	A
Operating Junction Temperature Range		T _J	-40 to +125	°C
Storage Temperature Range		T _{STG}	-40 to +150	°C

Off Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Max	Unit
Peak Repetitive Forward or Reverse Blocking Current (50Hz to 60Hz) V _{DRM} = 90V	I _{DRM}	5	μA

On Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Test Conditions	Symbol	Min	Max	Unit
Peak On-State Voltage	I _T = 1A	V _{TM}	—	1.5	V
Breakover Voltage	I _{BO} = 35μA	V _{BO}	95	110	V
Dynamic Holding Current		I _H	—	100	mA
Switching Resistance		R _S	0.1	—	kΩ
Critical Rate of Rise of On-State Current		di/dt	—	55	A/μs

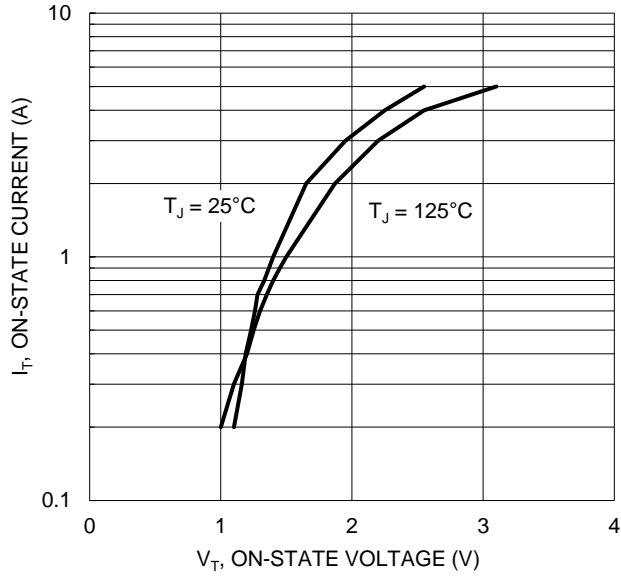


Figure 1. Typical On-State Voltage

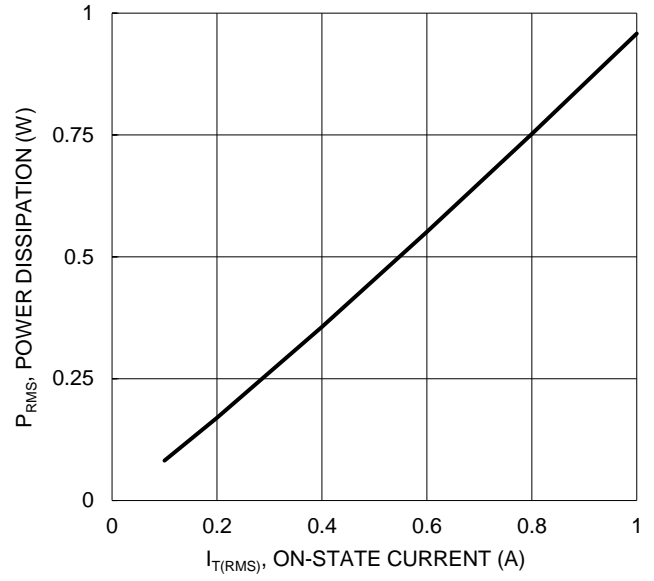


Figure 2. Typical Power Dissipation

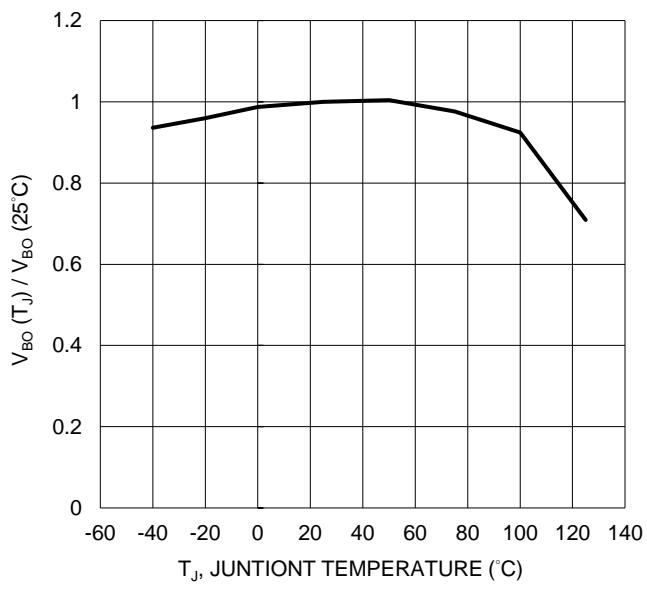


Figure 3. Typical Breakover Voltage

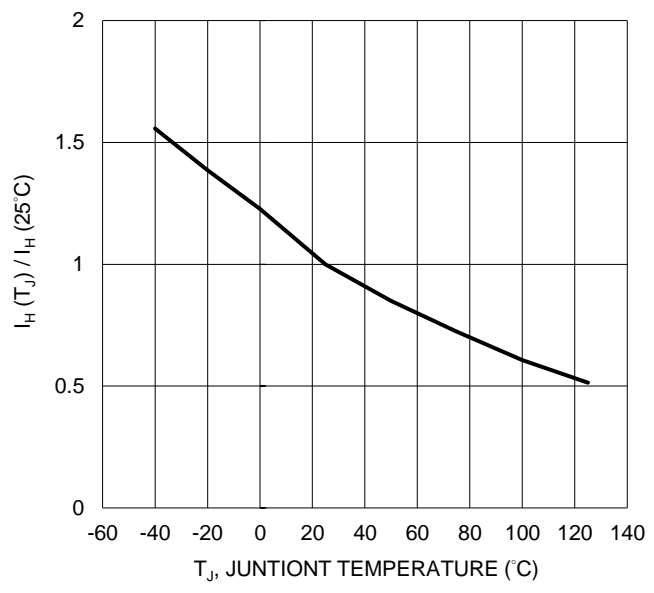
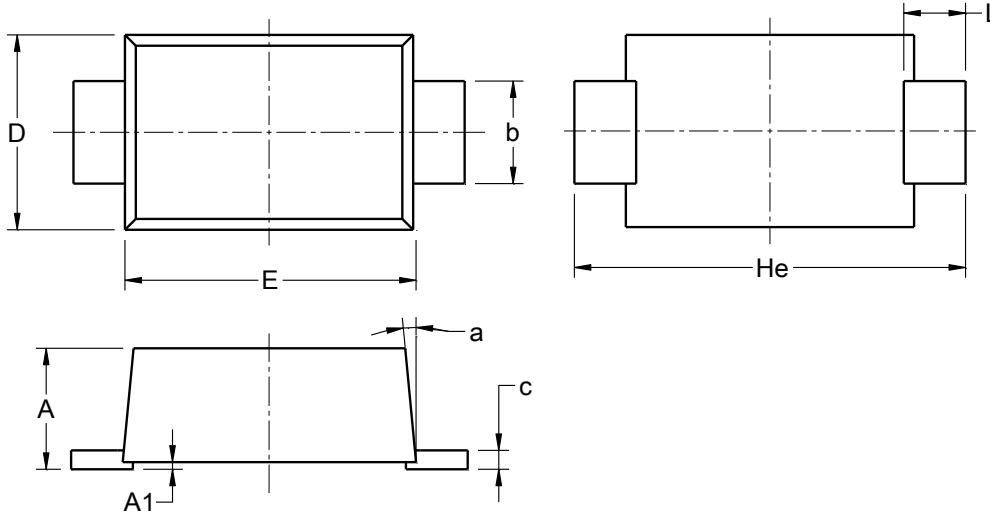


Figure 4. Typical Holding Current

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DO-219AA

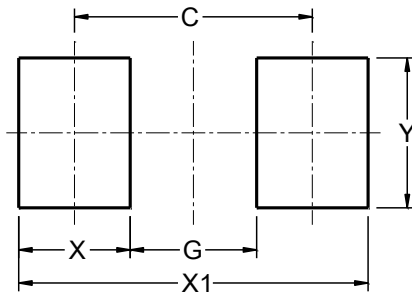


DO-219AA			
Dim	Min	Max	Typ
A	0.81	1.20	1.18
A1	0.03	0.10	0.07
b	0.85	1.15	1.00
c	0.05	0.30	0.15
D	1.70	2.00	1.90
E	2.70	2.90	2.80
He	3.50	3.90	3.80
L	0.45	0.75	0.60
a	0°	8°	5°
All Dimensions in mm			

Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

DO-219AA



Dimensions	Value (in mm)
C	2.86
G	1.52
X	1.34
X1	4.20
Y	1.80

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