



## DESCRIPTION

The AD2C111 is a bi-directional, single-pole, single-throw, normally open multipurpose solid-state relay. It is designed to replace electromechanical relays in general purpose switching applications. The relay consists of an integrated circuit that drives two rugged source-to-source enhancement type DMOS transistors - optically coupled to a light emitting diode.

## FEATURES

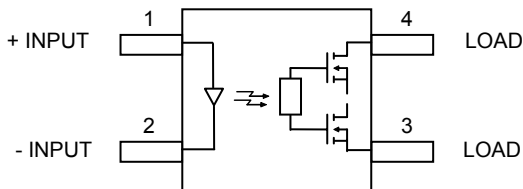
- Low input control power consumption (2.5mA TYP)
- 130mA maximum continuous load current
- 30 ohms maximum on-resistance
- High input-to-output isolation
- Long life/high reliability

## OPTIONS/SUFFIXES\*

- -H .04" (10.16mm) lead spacing (VDE0884)
- -S Surface Mount Option
- -TR Tape and Reel Option

NOTE: Suffixes listed above are not included in marking on device for part number identification.

## SCHEMATIC DIAGRAM



## APPLICATIONS

- Reed relay replacement
- Meter reading systems
- Medical equipment
- Battery monitoring
- Multiplexers

## ABSOLUTE MAXIMUM RATINGS\*

PARAMETER	UNIT	MIN	TYP	MAX
Storage Temperature	°C	-40		150
Operating Temperature	°C	-40		85
Continuous Forward Current	mA			50
Peak Forward Current	A			1
Reverse Voltage	V			5
Output Power Dissipation	mW			500

\*The values indicated are absolute stress ratings. Functional operation of the device is not implied at these or any conditions in excess of those defined in electrical characteristics section of this document. Exposure to Absolute Ratings may cause permanent damage to the device and may adversely affect reliability.

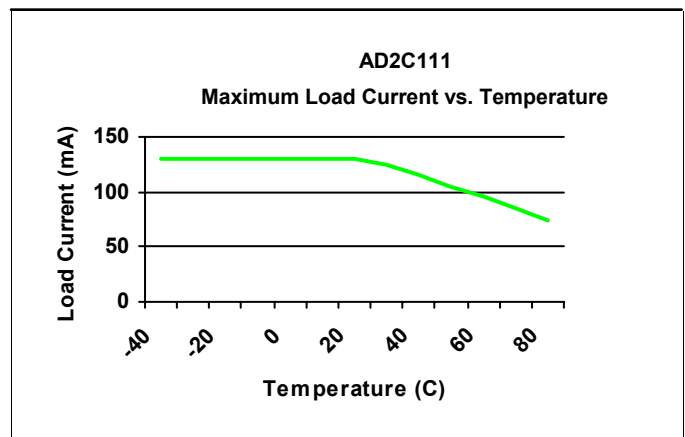
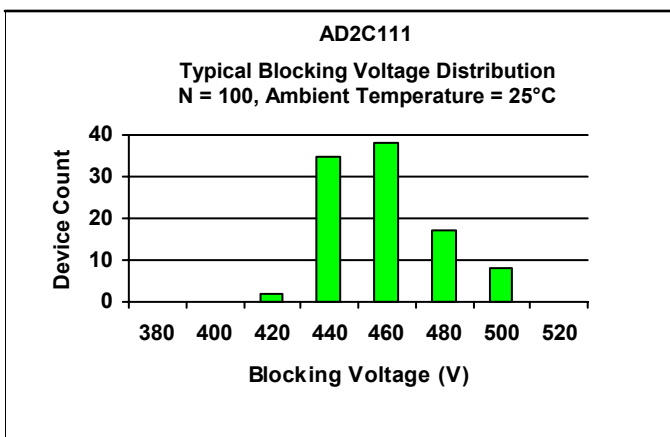
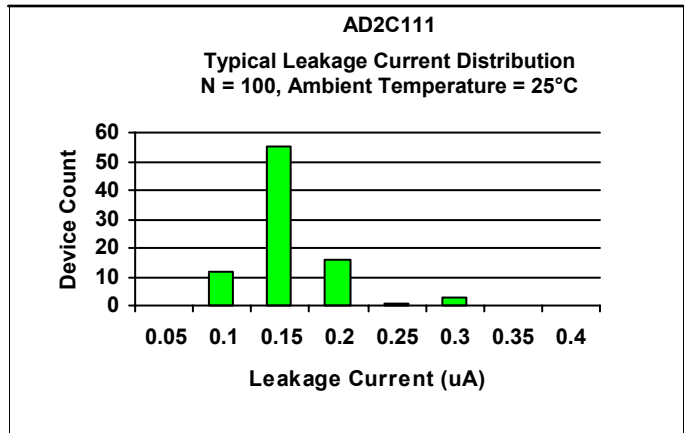
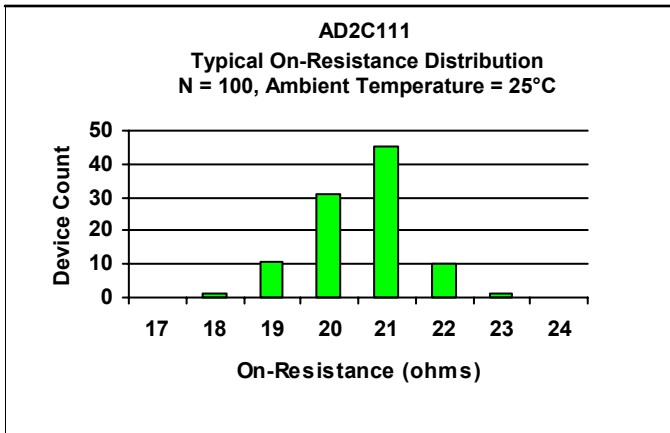
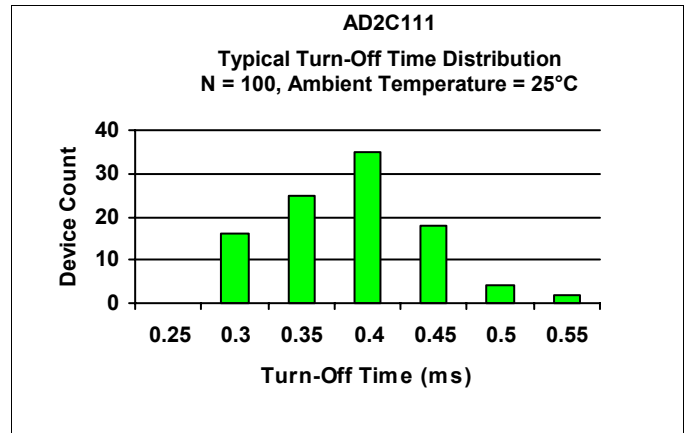
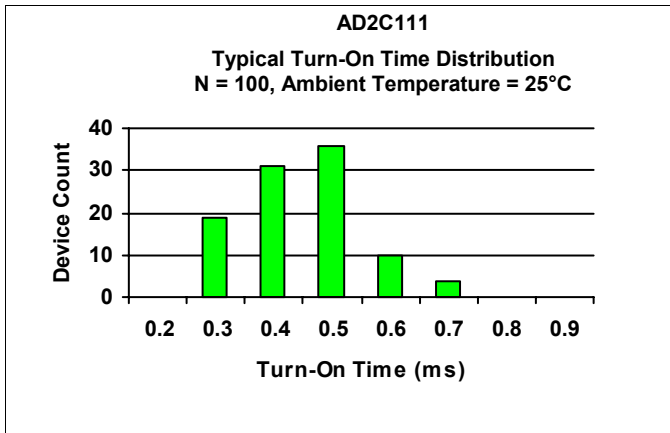
## APPROVALS

- UL FILE #E201932
- C-UL FILE #E201932

**ELECTRICAL CHARACTERISTICS - 25°C**

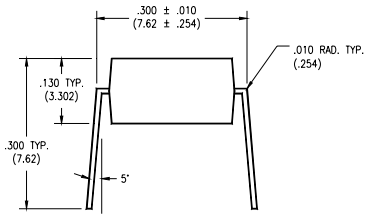
PARAMETER	UNIT	MIN	TYP	MAX	TEST CONDITIONS
<b>INPUT SPECIFICATIONS</b>					
LED Forward Voltage	V		1.8	2	If = 10mA
Turn-On Current	m A		2.5	5	Io = 100mA, Vo=20V T=10ms
Turn-Off Current	m A	0.2			
<b>OUTPUT SPECIFICATIONS</b>					
Blocking Voltage	V	400			Io = 1uA
Continuous Load Current	m A			130	If = 5mA
On-Resistance	Ω		20	30	Io = 130mA
Output Off-State Leakage Current	μ A		0.2	1	Vo = 400V
I/O Capacitance	p F	6			If=0, f = 1.0MHz
<b>COUPLED SPECIFICATIONS</b>					
Isolation Voltage	V	3750			T=1 min
Turn-On Time	m s		0.5	2	If = 5mA, Io = 130mA
Turn-Off Time	m s		0.5	1	If = 5mA, Io = 130mA
Isolation Resistance	G Ω	100			

**PERFORMANCE DATA**



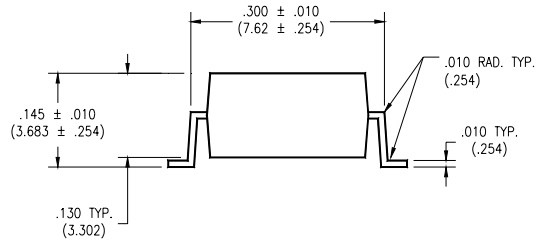
**MECHANICAL DIMENSIONS**

**4 PIN DUAL IN-LINE PACKAGE**

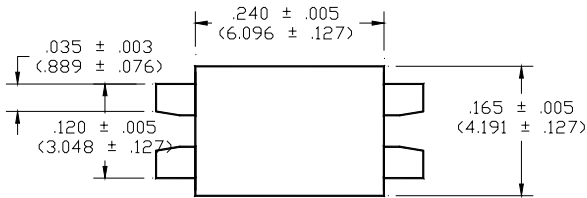


END VIEW

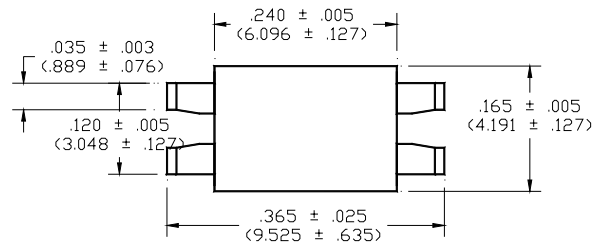
**4 PIN SURFACE MOUNT DEVICE**



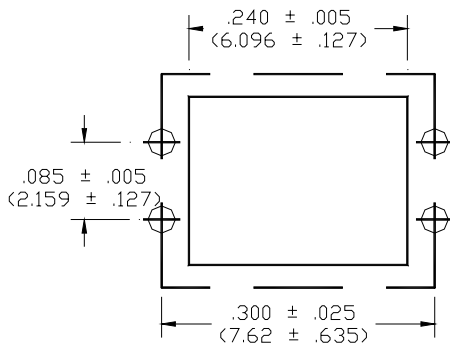
END VIEW



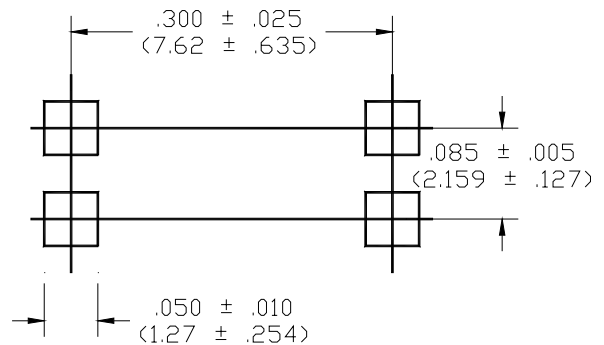
TOP VIEW



TOP VIEW



BOTTOM VIEW



BOTTOM VIEW

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