

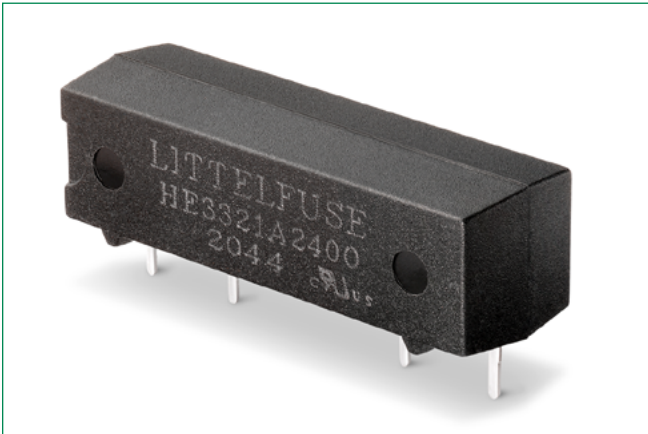


**THE DATASHEET OF  
HE3321A1200**



# H3300

## Miniature Single In-line Reed Relay



### Description

The HE3300 is a miniature reed relay in a SIL package with a choice of normally open, normally open high voltage or changeover contacts capable of switching up to 300Vdc at 10W. It is available with 5V, 12V, and 24V coils and has external magnetic shield options.

### Features & Benefits

- Single in-line configuration allows high packing densities, minimizing space and cost
- Lower power coil consumption than competing electromechanical devices
- Hermetically sealed switching contact is immune to its environment
- Transfer molded package gives maximum component protection
- Miniature single in-line package
- High voltage switching version
- Normally open and change over contact configurations available
- External magnetic shield option
- RoHS Compliant
- UL Recognized to UL 508 as an Industrial Control Switch

### Agency Approvals

Agency	Agency File Number
	E47258

**Note:** Not all parts are UL Recognized. Contact Littelfuse for specific parts and agency approval ratings.

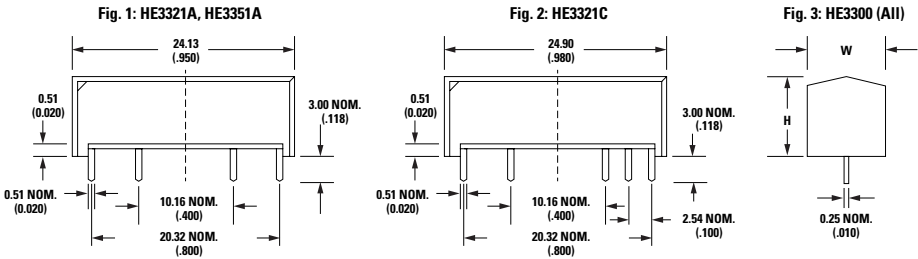
### Applications

- Security Systems
- Telecom Equipments
- Process Control Systems
- Automatic Test Equipments
- Instrumentation

### Dimensions

Dimensions in mm (inch)

Relay Type	Body Type	L	W	H
HE3300	Transfer Molded	24.13 (.950)	7.00 (.276)	7.40 (.291)
	External Shield	24.90 (.980)	7.60 (.299)	7.80 (.307)



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**Table 2**  
Electrical and Operating Characteristics @ 25°C

Characteristics			Contact Type		
			Form A SPST-NO Standard	Form A SPST-NO High Voltage	Form C SPST-CO Standard
			Relay Types		
			HE3321A	HE3351A	HE3321C
Contact Rating <sup>1</sup>	Power, Switching	Watt - max.	10	10	5
	Voltage, Switching <sup>2</sup>	Vdc - max.	200	300	175
		Vac - max.	140	265	120
	Current, Switching <sup>3</sup>	Adc - max.	0.5	0.5	0.25
Aac - max.		0.35	0.35	0.18	
	Current, Carry	Adc - max.	1.2	1.5	1.5
Voltage Hold-off <sup>4</sup>	Across Open Contacts Contacts to Coil	Vdc - min.	250	450	200
		Vac - min.	2500	2500	2500
Resistance	Contact, Initial	Ω max.	0.150	0.150	0.200
	Insulation Across Open Contacts	Ω min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>
	Insulation Between Isolated Terminals	Ω min.	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>10</sup>
Timing	Operate Time		1.0	1.0	3.0
	Release Time	ms - max.	1.0	1.0	3.0
Environmental	Temperature, Operating	°C	-40 to +85	-20 to +85	-40 to +85
	Temperature, Storage <sup>5</sup>	°C	-40 to +105	-40 to +105	-40 to +105
	Vibration Resistance	G - max. 10-2000 Hz.	20	20	20
	Shock Resistance	G - max. 11 ms ½ sine	50	50	50

**Notes:**

1. Contact rating - Product of the switching voltage and current should never exceed the wattage rating. Contact Littelfuse for additional load/lofe information.
2. When switching inductive and/or capacitive loads, the effects of transient voltages and/or currents should be considered. Refer to Application Notes AN108A & AN107 for details.
3. Electrical Load Life Expectancy - Contact Littelfuse with voltage current values along with type of load.
4. Breakdown Voltage - Per MIL-STD-202, Method 301.
5. Storage Temperature - Long time exposure at elevated temperature may degrade solderability of the leads.

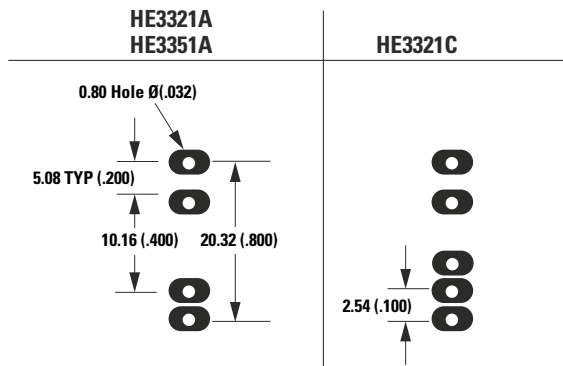
**Table 3**  
Coil Characteristics @ 25°C

Contact Form & Type	Electrical & Operating Characteristics	Dimensions	Part Number	Nominal Coil Voltage Vdc	Coil Resistance ±10% Ohms	Must Operate Vdc	Must Release Vdc	Maximum Coil Voltage Vdc	Top View 2.54mm (0.1") Grid Dot on Case: Pin 1 Numbers not printed on case.
1A SPST-NO	See Table 2 Column 1	See Figure 1	HE3321A0400	5	500	3.75	0.5	22	
			HE3321A1200	12	500	9.0	1.0	22	
			HE3321A2400	24	2000	18.0	2.0	44	
1C SPDT-CO	See Table 2 Column 3	See Figure 2	HE3321C0500	5	125	3.75	0.5	11	
			HE3321C1200	12	500	9.0	1.0	22	
			HE3321C2400	24	2000	18.0	2.0	44	
1A SPST-NO High Voltage	See Table 2 Column 2	See Figure 1	HE3351A0500	5	125	3.75	0.5	11	
			HE3351A1200	12	500	9.0	1.0	22	
			HE3351A2400	24	2000	18.0	2.0	44	

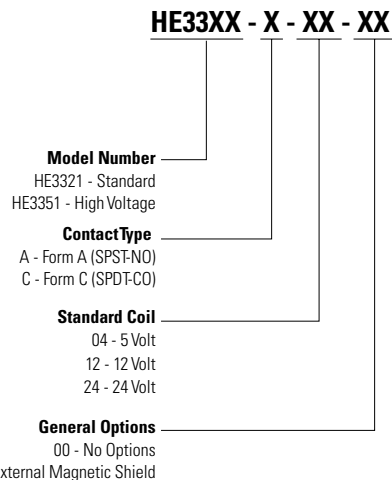
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## Miniature Single In-line Reed Relay

### HE3300 PCB Layout (Bottom View)



### Part Numbering System



**Note:** Not all combinations of Part Number suffixes are available. Contact Littelfuse for details.

### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Bulk	Bulk	500	N/A	N/A

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