



### SI8655BB-B-IS1R Information

Part Number SI8655BB-B-IS1R

Manufacturer Silicon Labs Category Isolators

**Digital Isolators** 

**Description** DGTL ISO 2.5KV GEN PURP 16SOIC

Package 16-SOIC (0.154", 3.90mm Width)

For the pricing/inventory/lead time, please contact

Website: https://www.heisener.com For Reference Only

E-mail: salesdept@heisener.com



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### **Certified Quality**

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# SI8655BB-B-IS1R Specifications

| Manufacturer Part Number         \$18655BB-B-ISTR           Manufacturer         Silicon Labs           Category         Isolators           Package         16-SOIC (0.154", 3.90mm Width)           Series         Automotive, AEC-Q100           Technology         Capacitive Coupling           Type         General Purpose           Isolated Power         No           Number of Channels         5           Inputs - Side 1/Side 2         5/0           Channel Type         Unidirectional           Voltage - Isolation         2500Vrms           Common Mode Transient Immunity (Min)         35kV/µs           Data Rate         150Mbps           Propagation Delay tpLH / tpHL (Max)         13ns, 13ns           Pulse Width Distortion (Max)         4.5ns           Rise / Fall Time (Typ)         2.5ns, 2.5ns           Voltage - Supply         2.5 v ~ 5.5 v           Operating Temperature         40°C ~ 125°C           Package / Case         16-SOIC (0.154", 3.90mm Width)           Supplier Device Package         16-SOIC |                                      |                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|
| Category         Isolators           Package         16-SOIC (0.154", 3.90mm Width)           Series         Automotive, AEC-Q100           Technology         Capacitive Coupling           Type         General Purpose           Isolated Power         No           Number of Channels         5           Inputs - Side 1/Side 2         5/0           Channel Type         Unidirectional           Voltage - Isolation         2500Vrms           Common Mode Transient Immunity (Min)         35kV/µs           Data Rate         150Mbps           Propagation Delay tpLH / tpHL (Max)         13ns, 13ns           Pulse Width Distortion (Max)         4.5ns           Rise / Fall Time (Typ)         2.5ns, 2.5ns           Voltage - Supply         2.5 V ~ 5.5 V           Operating Temperature         40°C ~ 125°C           Package / Case         16-SOIC (0.154", 3.90mm Width)           Supplier Device Package         16-SOIC                                                                                                         | Manufacturer Part Number             | SI8655BB-B-IS1R                |
| Package         16-SOIC (0.154", 3.90mm Width)           Series         Automotive, AEC-Q100           Technology         Capacitive Coupling           Type         General Purpose           Isolated Power         No           Number of Channels         5           Inputs - Side 1/Side 2         5/0           Channel Type         Unidirectional           Voltage - Isolation         2500Vrms           Common Mode Transient Immunity (Min)         35kV/μs           Data Rate         150Mbps           Propagation Delay tpLH / tpHL (Max)         13ns, 13ns           Pulse Width Distortion (Max)         4.5ns           Rise / Fall Time (Typ)         2.5ns, 2.5ns           Voltage - Supply         2.5 V ~ 5.5 V           Operating Temperature         -40°C ~ 125°C           Package / Case         16-SOIC (0.154", 3.90mm Width)           Supplier Device Package         16-SOIC                                                                                                                                             | Manufacturer                         | Silicon Labs                   |
| Package         16-SOIC (0.154", 3.90mm Width)           Series         Automotive, AEC-Q100           Technology         Capacitive Coupling           Type         General Purpose           Isolated Power         No           Number of Channels         5           Inputs - Side 1/Side 2         5/0           Channel Type         Unidirectional           Voltage - Isolation         2500Vrms           Common Mode Transient Immunity (Min)         35kV/μs           Data Rate         150Mbps           Propagation Delay tpLH / tpHL (Max)         13ns, 13ns           Pulse Width Distortion (Max)         4.5ns           Rise / Fall Time (Typ)         2.5ns, 2.5ns           Voltage - Supply         2.5 V ~ 5.5 V           Operating Temperature         -40°C ~ 125°C           Package / Case         16-SOIC (0.154", 3.90mm Width)           Supplier Device Package         16-SOIC                                                                                                                                             | Category                             | Isolators                      |
| SeriesAutomotive, AEC-Q100TechnologyCapacitive CouplingTypeGeneral PurposeIsolated PowerNoNumber of Channels5Inputs - Side 1/Side 25/0Channel TypeUnidirectionalVoltage - Isolation2500VrmsCommon Mode Transient Immunity (Min)35kV/μsData Rate150MbpsPropagation Delay tpLH / tpHL (Max)13ns, 13nsPulse Width Distortion (Max)4.5nsRise / Fall Time (Typ)2.5ns, 2.5nsVoltage - Supply2.5 V ~ 5.5 VOperating Temperature-40°C ~ 125°CPackage / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      | Digital Isolators              |
| TechnologyCapacitive CouplingTypeGeneral PurposeIsolated PowerNoNumber of Channels5Inputs - Side 1/Side 25/0Channel TypeUnidirectionalVoltage - Isolation2500VrmsCommon Mode Transient Immunity (Min)35kV/μsData Rate150MbpsPropagation Delay tpLH / tpHL (Max)13ns, 13nsPulse Width Distortion (Max)4.5nsRise / Fall Time (Typ)2.5ns, 2.5nsVoltage - Supply2.5 V ~ 5.5 VOperating Temperature-40°C ~ 125°CPackage / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Package                              | 16-SOIC (0.154", 3.90mm Width) |
| Type General Purpose  Isolated Power No Number of Channels 5 Inputs - Side 1/Side 2 5/0 Channel Type Unidirectional Voltage - Isolation 2500Vrms Common Mode Transient Immunity (Min) 35kV/µs Data Rate 150Mbps Propagation Delay tpLH / tpHL (Max) 13ns, 13ns Pulse Width Distortion (Max) 4.5ns Rise / Fall Time (Typ) 2.5ns, 2.5ns Voltage - Supply 2.5 v ~ 5.5 V Operating Temperature -40°C ~ 125°C Package / Case 16-SOIC (0.154", 3.90mm Width) Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Series                               | Automotive, AEC-Q100           |
| Isolated Power  Number of Channels  5 Inputs - Side 1/Side 2  5/0  Channel Type  Unidirectional  Voltage - Isolation  2500Vrms  Common Mode Transient Immunity (Min)  35kV/µs  Data Rate  150Mbps  Propagation Delay tpLH / tpHL (Max)  13ns, 13ns  Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  2.5ns, 2.5ns  Voltage - Supply  2.5 V ~ 5.5 V  Operating Temperature  -40°C ~ 125°C  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Technology                           | Capacitive Coupling            |
| Number of Channels5Inputs - Side 1/Side 25/0Channel TypeUnidirectionalVoltage - Isolation2500VrmsCommon Mode Transient Immunity (Min)35kV/μsData Rate150MbpsPropagation Delay tpLH / tpHL (Max)13ns, 13nsPulse Width Distortion (Max)4.5nsRise / Fall Time (Typ)2.5ns, 2.5nsVoltage - Supply2.5 V ~ 5.5 VOperating Temperature-40°C ~ 125°CPackage / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Type                                 | General Purpose                |
| Inputs - Side 1/Side 2  Channel Type  Unidirectional  Voltage - Isolation  2500Vrms  Common Mode Transient Immunity (Min)  Data Rate  150Mbps  Propagation Delay tpLH / tpHL (Max)  Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  2.5ns, 2.5ns  Voltage - Supply  Operating Temperature  -40°C ~ 125°C  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Isolated Power                       | No                             |
| Channel Type  Voltage - Isolation  2500Vrms  Common Mode Transient Immunity (Min)  Data Rate  150Mbps  Propagation Delay tpLH / tpHL (Max)  Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  Voltage - Supply  Operating Temperature  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Number of Channels                   | 5                              |
| Voltage - Isolation 2500Vrms  Common Mode Transient Immunity (Min) 35kV/ $\mu$ s  Data Rate 150Mbps  Propagation Delay tpLH / tpHL (Max) 13ns, 13ns  Pulse Width Distortion (Max) 4.5ns  Rise / Fall Time (Typ) 2.5ns, 2.5ns  Voltage - Supply 2.5 V ~ 5.5 V  Operating Temperature -40°C ~ 125°C  Package / Case 16-SOIC (0.154", 3.90mm Width)  Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Inputs - Side 1/Side 2               | 5/0                            |
| Common Mode Transient Immunity (Min)  Data Rate  150Mbps  Propagation Delay tpLH / tpHL (Max)  Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  2.5ns, 2.5ns  Voltage - Supply  2.5 V ~ 5.5 V  Operating Temperature  -40°C ~ 125°C  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Channel Type                         | Unidirectional                 |
| Data Rate 150Mbps  Propagation Delay tpLH / tpHL (Max) 13ns, 13ns  Pulse Width Distortion (Max) 4.5ns  Rise / Fall Time (Typ) 2.5ns, 2.5ns  Voltage - Supply 2.5 V ~ 5.5 V  Operating Temperature -40°C ~ 125°C  Package / Case 16-SOIC (0.154", 3.90mm Width)  Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Voltage - Isolation                  | 2500Vrms                       |
| Propagation Delay tpLH / tpHL (Max)  Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  2.5ns, 2.5ns  Voltage - Supply  2.5 V ~ 5.5 V  Operating Temperature  -40°C ~ 125°C  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Common Mode Transient Immunity (Min) | 35kV/μs                        |
| Pulse Width Distortion (Max)  Rise / Fall Time (Typ)  2.5ns, 2.5ns  Voltage - Supply  2.5 V ~ 5.5 V  Operating Temperature  -40°C ~ 125°C  Package / Case  16-SOIC (0.154", 3.90mm Width)  Supplier Device Package                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Data Rate                            | 150Mbps                        |
| Rise / Fall Time (Typ) 2.5ns, 2.5ns<br>Voltage - Supply 2.5 V $\sim$ 5.5 V<br>Operating Temperature -40°C $\sim$ 125°C<br>Package / Case 16-SOIC (0.154", 3.90mm Width)<br>Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Propagation Delay tpLH / tpHL (Max)  | 13ns, 13ns                     |
| Voltage - Supply $2.5 \text{ V} \sim 5.5 \text{ V}$ Operating Temperature $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ Package / Case $16\text{-SOIC} \ (0.154'', 3.90 \text{mm Width})$ Supplier Device Package $16\text{-SOIC}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Pulse Width Distortion (Max)         | 4.5ns                          |
| Operating Temperature $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ Package / Case $16\text{-SOIC}$ (0.154", 3.90mm Width) Supplier Device Package $16\text{-SOIC}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rise / Fall Time (Typ)               | 2.5ns, 2.5ns                   |
| Package / Case 16-SOIC (0.154", 3.90mm Width) Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Voltage - Supply                     | 2.5 V ~ 5.5 V                  |
| Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Operating Temperature                | -40°C ~ 125°C                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Package / Case                       | 16-SOIC (0.154", 3.90mm Width) |
| Report errors?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Supplier Device Package              | 16-SOIC                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      | Report errors?                 |

#### SI8655BB-B-IS1R Guarantees



#### **Quality Guarantees**

We provide 90 days warranty. \*

If the items you received were not in perfect quality, we would be responsible for your refund or replacement, but the items must be returned in their original condition.



#### **Service Guarantees**

We guarantee 100% customer satisfaction.

Our experienced sales team and tech support team back our services to satisfy all our customers.

### SI8655BB-B-IS1R Payment Methods



















## SI8655BB-B-IS1R Shipping Methods













If you have any question about SI8655BB-B-IS1R, please do not hesitate to contact us!

Website: https://www.heisener.com E-mail: salesdept@heisener.com