



### SI8642EC-B-IS1 Information

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For Reference Only

Part Number S18642EC-B-IS1
Manufacturer Silicon Labs
Category Isolators

**Digital Isolators** 

**Description** DGTL ISO 3.75KV GEN PURP 16SOIC

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

For the pricing/inventory/lead time, please contact

us

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



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Heisener's commitment to quality has shaped our processes for sourcing, testing, shipping, and every step in between. This foundation underlies each component we sell.









# SI8642EC-B-IS1 Specifications

Manufacturer Part Number         \$18642EC-B-IS1           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         4           Inputs - Side 1/Side 2         2/2           Channel Type         Unidirectional           Voltage - Isolation         3750Vrms           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         4           Inputs - Side 1/Side 2         2/2           Channel Type         Unidirectional           Voltage - Isolation         3750Vrms           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	SI8642EC-B-IS1
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SeriesAutomotive, AEC-Q100TechnologyCapacitive CouplingTypeGeneral PurposeIsolated PowerNoNumber of Channels4Inputs - Side 1/Side 2 $2/2$ Channel TypeUnidirectionalVoltage - Isolation $3750Vrms$ 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 $2.5 V \sim 5.5 V$ Operating Temperature $-40^{\circ}C \sim 125^{\circ}C$ Package / Case $16-SOIC$ ( $0.154^{\circ}$ , $3.90mm$ Width)Supplier Device Package $16-SOIC$		Digital Isolators
Technology         Capacitive Coupling           Type         General Purpose           Isolated Power         No           Number of Channels         4           Inputs - Side 1/Side 2         2/2           Channel Type         Unidirectional           Voltage - Isolation         3750Vrms           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	Package	16-SOIC (0.154", 3.90mm Width)
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Isolated Power  Number of Channels  4  Inputs - Side 1/Side 2  Channel Type  Unidirectional  Voltage - Isolation  3750Vrms  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
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Channel Type  Voltage - Isolation  3750Vrms  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  -40°C ~ 125°C  Package / Case  16-SOIC  Unidirectional  3750Vrms  3750Vrms  35kV/µs  150Mbps  13ns, 13ns  4.5ns  2.5ns, 2.5ns  2.5ns, 2.5ns  16-SOIC  16-SOIC  16-SOIC	Number of Channels	4
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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	Channel Type	Unidirectional
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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?

#### SI8642EC-B-IS1 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.

### SI8642EC-B-IS1 Payment Methods



















## SI8642EC-B-IS1 Shipping Methods













If you have any question about SI8642EC-B-IS1, please do not hesitate to contact us!

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