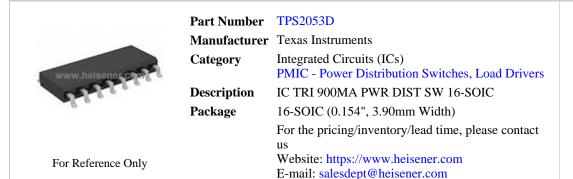


# **TPS2053D**

### **TPS2053D Information**





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## **Certified Quality**

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.



## **TPS2053D Specifications**

| Manufacturer Part NumberTPS2053DManufacturerTexas InstrumentsCategoryIntegrated Circuits (ICs)PMIC - Power Distribution Switches, Load DriversPackage16-SOIC (0.154", 3.90mm Width)Series-Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output12, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelVoltage - Load2,7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)SomAAds On TyppSomAInput PipeSomAInput PipeSomASupple - ConfigurationSomAOutput Supply (Vcc/Vdd)SomARatio - TyppSomASupple - ConfigurationSomASupple - ConfigurationSomA <th>-</th> <th></th> | -                          |                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------|
| CategoryIntegrated Circuits (ICs)PMIC - Power Distribution Switches, Load DriversPackageI6-SOIC (0.154", 3.90mm Width)Series-Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelNuffaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredRaton (Typ)SolomARaton (Typ)SolomARaton (Typ)Satus FlagFeaturesSatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature4.0°C ~ 125°C (TJ)Package / CaseI6-SOIICSupplier Device PackageI6-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Manufacturer Part Number   | TPS2053D                                         |
| PMIC - Power Distribution Switches, Load DriversPackage16-SOIC (0.154", 3.90mm Width)Series-Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelNutheraceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredQurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Manufacturer               | Texas Instruments                                |
| PackageId-SOIC (0.154", 3.90mm Width)Series-Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelInterfaceOn/OffVoltage - Load2, 7 < 5.5 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Category                   | Integrated Circuits (ICs)                        |
| Series-Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelInterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARaton TypeNon-InvertingFeaturesStatus FlagFautresCurrent Liniting (Fixed), Over Temperature, UVLOOperating Temperature4.0°C ~ 125°C (TJ)Package / Case16.SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            | PMIC - Power Distribution Switches, Load Drivers |
| Switch TypeGeneral PurposeNumber of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelInterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmFeaturesStatus FlagFourper trenderCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Package                    | 16-SOIC (0.154", 3.90mm Width)                   |
| Number of Outputs3Ratio - Input:Output1:2, 1:1Output ConfigurationHigh SideOutput TypeN-ChannelOutput TypeOn/OffInterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Series                     | -                                                |
| Ratio - Input:Output 1:2, 1:1   Output Configuration High Side   Output Type N-Channel   Interface On/Off   Voltage - Load 2.7 V ~ 5.5 V   Voltage - Supply (Vcc/Vdd) Not Required   Current - Output (Max) 500mA   Ration Type Non-Inverting   Input Type Non-Inverting   Features Status Flag   Polerating Temperature -40°C ~ 125°C (TJ)   Package / Case 16-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Switch Type                | General Purpose                                  |
| Output ConfigurationHigh SideOutput TypeN-ChannelInterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStaus FlagFult ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature40°C ~ 125°C (TJ)Package / CaseI6-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Number of Outputs          | 3                                                |
| Output TypeN-ChannelOutput TypeOn/OffInterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Ratio - Input:Output       | 1:2, 1:1                                         |
| InterfaceOn/OffVoltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Output Configuration       | High Side                                        |
| Voltage - Load2.7 V ~ 5.5 VVoltage - Supply (Vcc/Vd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Output Type                | N-Channel                                        |
| Voltage - Supply (Vcc/Vdd)Not RequiredCurrent - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Interface                  | On/Off                                           |
| Current - Output (Max)500mARds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage - Load             | 2.7 V ~ 5.5 V                                    |
| Rds On (Typ)80 mOhmInput TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Voltage - Supply (Vcc/Vdd) | Not Required                                     |
| Input TypeNon-InvertingFeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Current - Output (Max)     | 500mA                                            |
| FeaturesStatus FlagFault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Rds On (Typ)               | 80 mOhm                                          |
| Fault ProtectionCurrent Limiting (Fixed), Over Temperature, UVLOOperating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Input Type                 | Non-Inverting                                    |
| Operating Temperature-40°C ~ 125°C (TJ)Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Features                   | Status Flag                                      |
| Package / Case16-SOIC (0.154", 3.90mm Width)Supplier Device Package16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Fault Protection           | Current Limiting (Fixed), Over Temperature, UVLO |
| Supplier Device Package 16-SOIC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Operating Temperature      | -40°C ~ 125°C (TJ)                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Package / Case             | 16-SOIC (0.154", 3.90mm Width)                   |
| Report errors?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Supplier Device Package    | 16-SOIC                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            | Report errors?                                   |

#### **TPS2053D 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 BUARANTEE

#### **Service Guarantees**

We guarantee 100% customer satisfaction. Our experienced sales team and tech support team back our services to satisfy all our customers.



If you have any question about TPS2053D, please do not hesitate to contact us! Website: https://www.heisener.com E-mail: salesdept@heisener.com