



Open Data in electronics industry

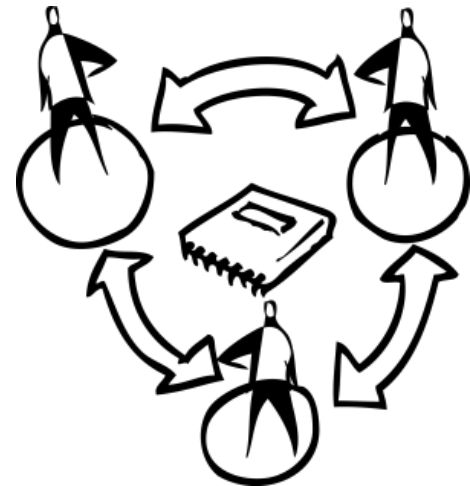
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Twitter: [@NXPdata](https://twitter.com/NXPdata)

Open Data on the Web

2013-04-24



About NXP

- ▶ NXP is a semiconductor (microchip) manufacturer
- ▶ Established: 2006 (formerly a division of Philips) with 50+ years of experience in semiconductors
- ▶ Headquarters: Eindhoven, The Netherlands
- ▶ Customers include Apple, Bosch, Continental, Delphi, Giesecke/Devrient, Harman/Becker, Huawei, Nokia, Samsung and ZTE
- ▶ Portfolio of **20,000+** products



Content is the product

Product data is part of the content

=>

Data is the product

The bad old days

Stone aged attitude to product information

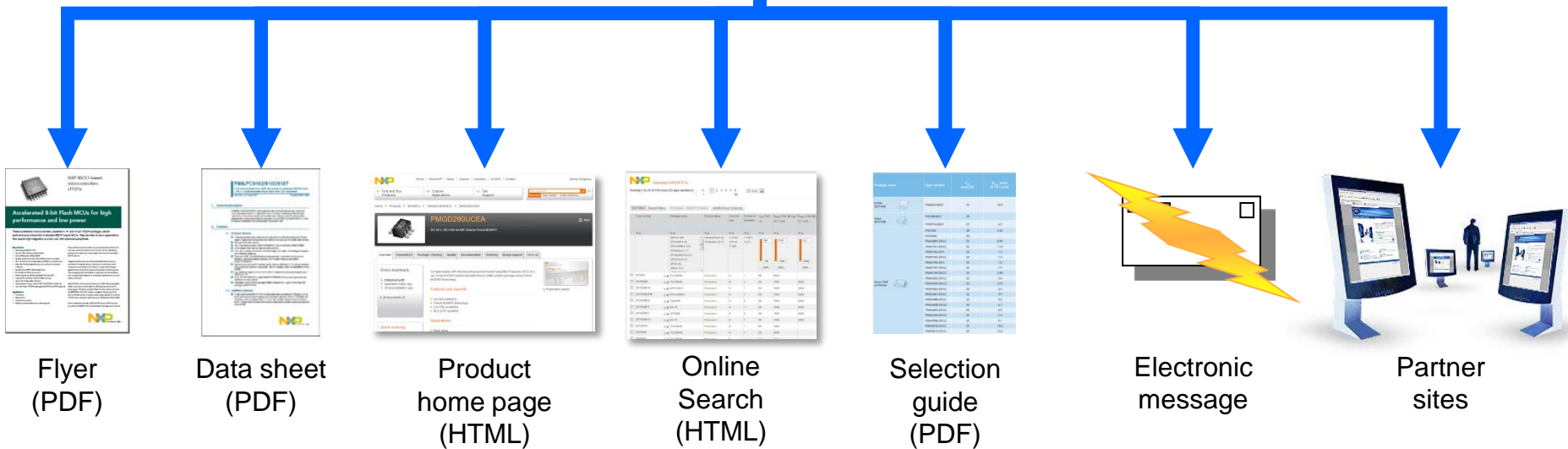
- ▶ Document-centric product information management
 - Multiple separately-maintained content silos
 - Content re-use is manual copy and paste or, worse, re-typing
- ▶ Consequences for NXP:
 - Inconsistent content and uncontrolled publications
 - Duplicated effort and extra time to publish
 - Error prone and costly to maintain
 - Highly-complex process and architecture
- ▶ Consequences for our partners and customers:
 - Unclear what information represents ‘the truth’
 - Manual effort to gather product information
 - Difficult to find all new and updated products

The vision: Unified Content Strategy



ISO 13584 / IEC 16360

Create Once,
Approve once,
Re-Use Many Times





BTA2008-1000D

3Q Hi-Com Triac
18 March 2013

Product data sheet

1. General description

Planar passivated high commutation three quadrant triac in a SOT54 (TO-92) plastic package. This "series D" triac balances the requirements of commutation performance and gate sensitivity and is intended for interfacing with low power drivers and logic ICs including microcontrollers.

2. Features and benefits

- 3Q technology for improved noise immunity
- Direct gate triggering from low power drivers and logic ICs
- High commutation capability with very sensitive gate
- High voltage capability
- Planar passivated for voltage ruggedness and reliability
- Triggering in three quadrants only
- Very sensitive gate for easy logic level triggering

3. Applications

- Low power motor controls
- Small inductive loads e.g. solenoids, door locks, water valves
- Small loads in large white goods

4. Quick reference data

Table 1. Quick reference data

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|-------------------------------|--------------------------------------|--|------|-----|------|------|
| V_{RSM} | repetitive peak off-state voltage | | - | - | 1000 | V |
| I_{RSM} | non-repetitive peak on-state current | full sine wave; $T_{\text{J(max)}}$ = 25 °C; t_p = 20 ms; Fig. 4 ; Fig. 5 | - | - | 9 | A |
| T_j | junction temperature | | - | - | 125 | °C |
| I_{RSM} | RMS on-state current | full sine wave; $T_{\text{J(max)}}$ ≤ 70 °C; Fig. 1 ; Fig. 2 ; Fig. 3 | - | - | 0.8 | A |
| Static characteristics | | | | | | |
| I_{GT} | gate trigger current | V_D = 12 V; I_T = 0.1 A; T2+ G+; T_j = 25 °C; Fig. 1 | 0.25 | - | 5 | mA |



Scan or click this QR code to view the latest information for this product



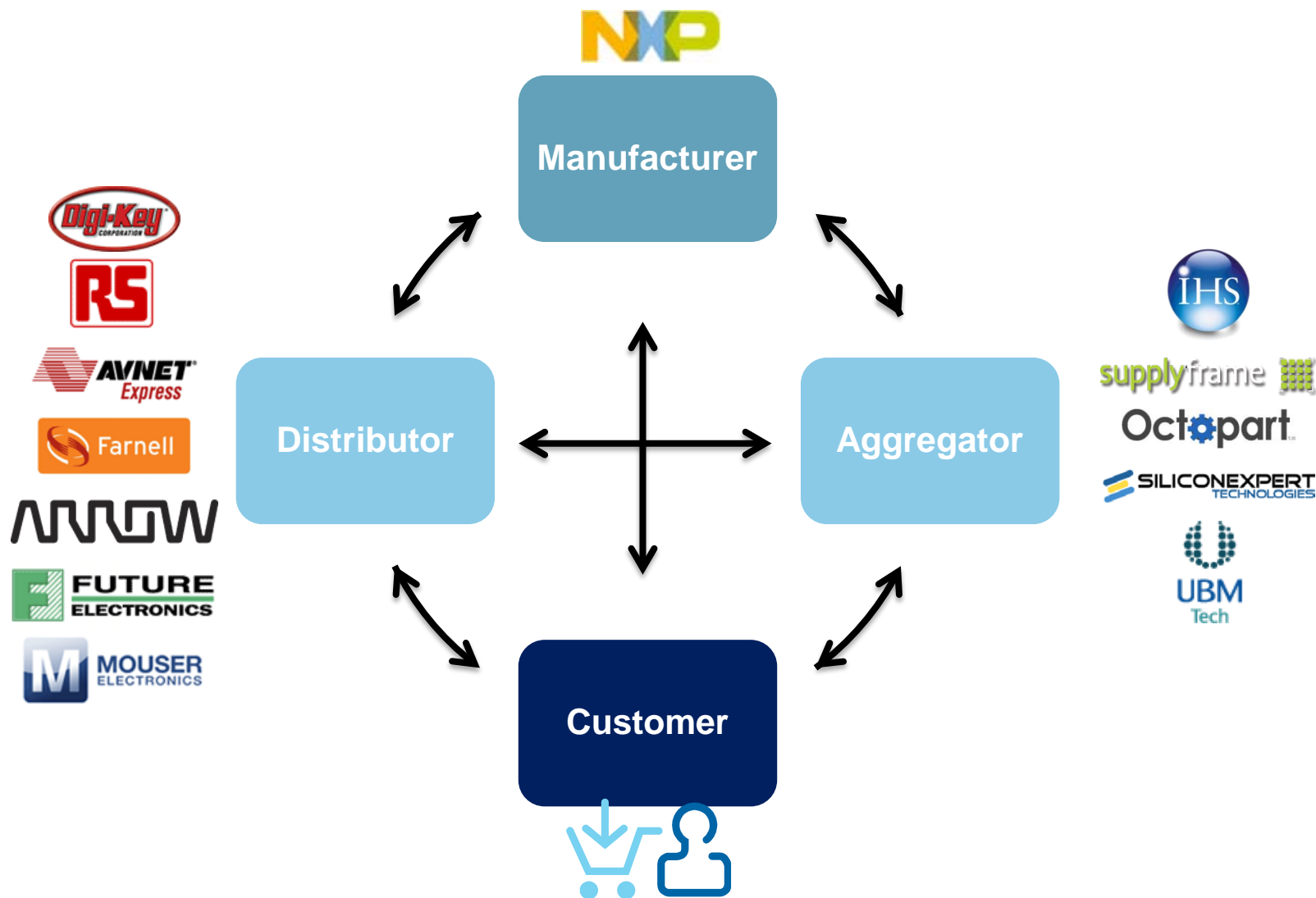
Viewing 1 to 25 of 213 rows (25 type numbers) | << **1** 2 3 4 5 >> 25 rows

Common characteristics:

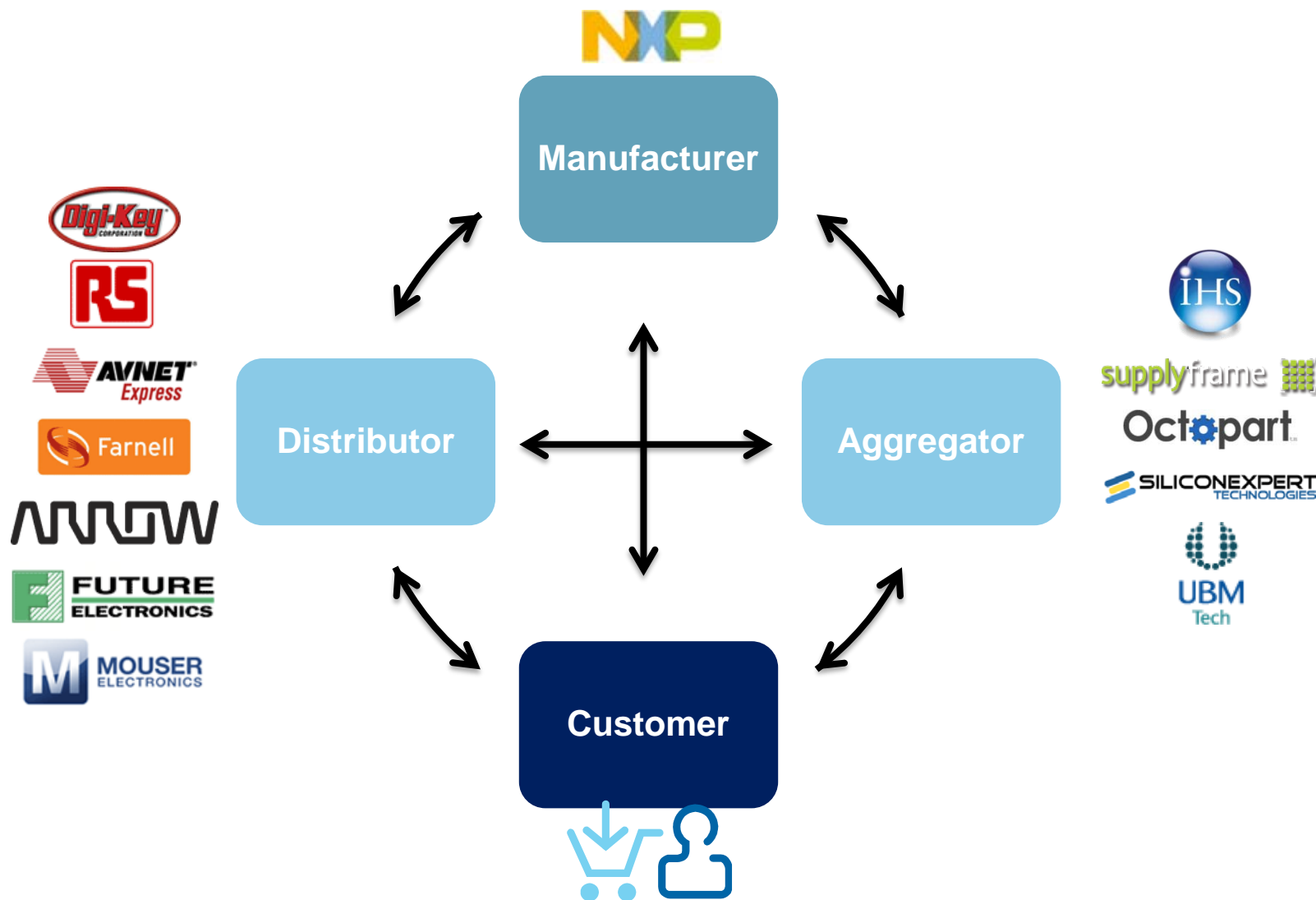
Product status **Production**

| Type number | Package version | Package name | Product status | V _{DRM} [max] (V) | I _{T(RMS)} [max] (A) | I _{GT} [max] in quadrant 1 (mA) | I _{GT} [max] in quadrant 2 (mA) | I _{GT} [max] in quadrant 3 (mA) | I _{TSM} [max] @ 50 Hz (A) | T _j [max] (°C) |
|--|---|---|---|---|---|---|---|---|--|--|
| | <input type="button" value="v"/> <ul style="list-style-type: none"> SOT186A (63) SOT223 (11) SOT404 (30) SOT428 (16) SOT54 (10) SOT78 (67) SOT78D (16) | <input type="button" value="v"/> <ul style="list-style-type: none"> D2PAK (30) DPAK (16) SC-73 (11) TO-220AB (83) TO-220F (63) TO-92 (10) | <input type="button" value="v"/> <ul style="list-style-type: none"> Production (213) | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="1000"/> <input type="text" value="600"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="25"/> <input type="text" value="0.8"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="50"/> <input type="text" value="5"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="50"/> <input type="text" value="5"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="60"/> <input type="text" value="5"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="200"/> <input type="text" value="0"/> <input type="button" value="Apply"/> </div> | <input type="button" value="v"/> <div style="text-align: center;"> <input type="text" value="150"/> <input type="text" value="125"/> <input type="button" value="Apply"/> </div> |
| <input type="checkbox"/> BTA2008-1000D | <input type="button" value="v"/> SOT54 | TO-92 | Production | 1000 | 0.8 | 5 | 5 | 5 | 9 | 125 |
| <input type="checkbox"/> BTA2008-600D | <input type="button" value="v"/> SOT54 | TO-92 | Production | 600 | 0.8 | 5 | 5 | 5 | 9 | 125 |
| <input type="checkbox"/> BTA2008-600E | <input type="button" value="v"/> SOT54 | TO-92 | Production | 600 | 0.8 | 10 | 10 | 10 | 9 | 125 |
| <input type="checkbox"/> BTA2008-800D | <input type="button" value="v"/> SOT54 | TO-92 | Production | 800 | 0.8 | 5 | 5 | 5 | 9 | 125 |
| <input type="checkbox"/> BTA2008-800E | <input type="button" value="v"/> SOT54 | TO-92 | Production | 800 | 0.8 | 10 | 10 | 10 | 9 | 125 |
| <input type="checkbox"/> BTA2008W-600D | <input type="button" value="v"/> SOT223 | SC-73 | Production | 600 | 0.8 | 5 | 5 | 5 | 9 | 125 |
| <input type="checkbox"/> BTA2008W-800D | <input type="button" value="v"/> SOT223 | SC-73 | Production | 800 | 0.8 | 5 | 5 | 5 | 9 | 125 |
| <input type="checkbox"/> BTA201-600B | <input type="button" value="v"/> SOT54 | TO-92 | Production | 600 | 1 | 50 | 50 | 50 | 12.5 | 125 |
| <input type="checkbox"/> BTA201-600E | <input type="button" value="v"/> SOT54 | TO-92 | Production | 600 | 1 | 10 | 10 | 10 | 12.5 | 125 |

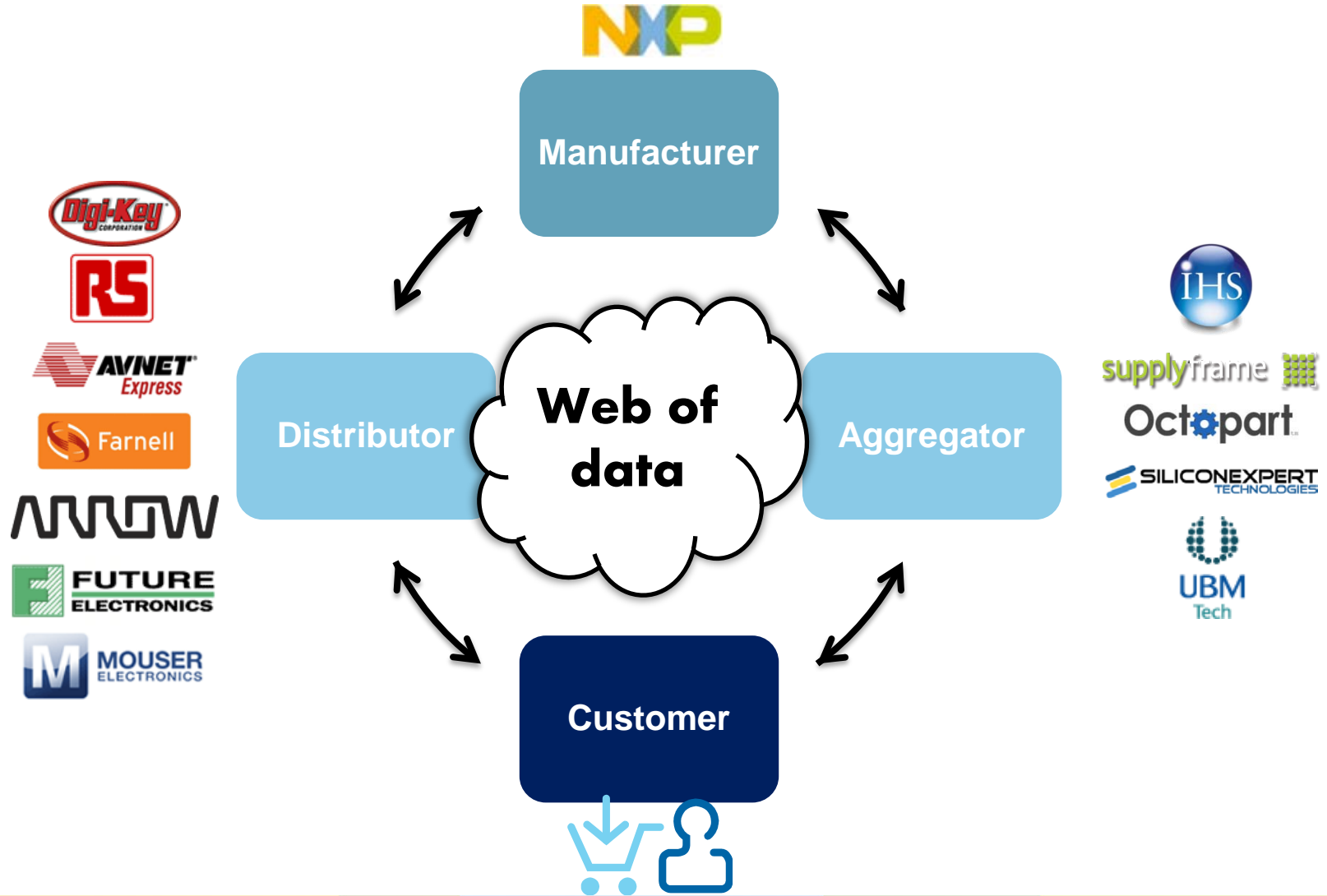
Broader online ecosystem



Broader online ecosystem



Broader online ecosystem

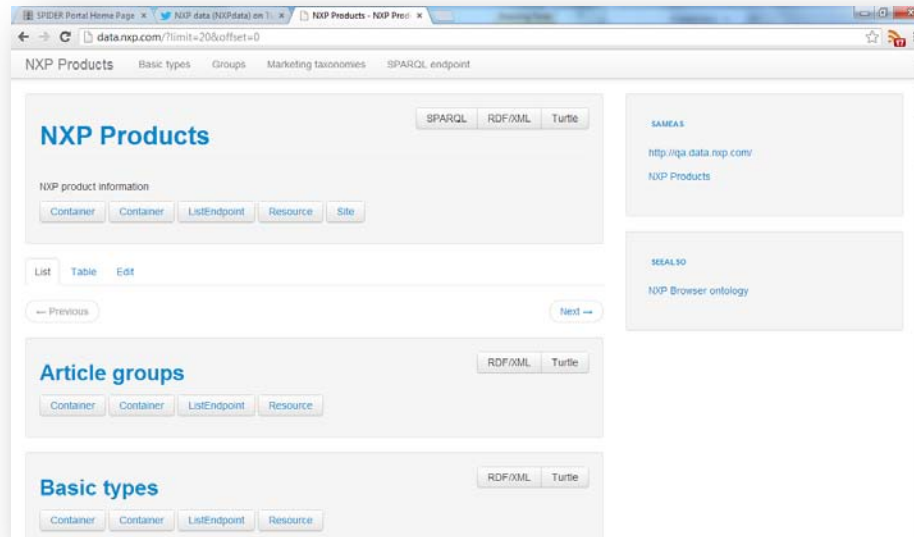


NXP Linked Product Data Work in progress!

<http://data.nxp.com>

Or for test data:

<http://qa.data.nxp.com>



Count of resources

| type | count |
|--|-------|
| <u>nxp:SalesItem</u> | 55519 |
| <u>nxp:ProductType</u> | 42956 |
| <u>nxp:BasicType</u> | 26108 |
| <u>nxp:FinancialClassification</u> | 14387 |
| <u>nfo:Archive</u> | 10967 |
| <u>nfo:PaginatedTextDocument</u> | 9265 |
| <u>nxp:Group</u> | 1868 |
| <u>nfo:Video</u> | 633 |
| <u>nxp:MarketingCategory</u> | 492 |
| <u>nfo:MediaList</u> | 164 |
| <u>nxp:MarketingTaxonomy</u> | 2 |

@prefix nxp: <http://purl.org/nxp/schema/v1/> .

@prefix nfo: <http://www.semanticdesktop.org/ontologies/nfo/#> .

Open Data challenges

- ▶ What are the key drivers?
- ▶ How to justify the business case (ROI)?
- ▶ What format(s)?
 - What is rate of adoption of RDF and Linked Data?
- ▶ How to ensure data quality?
- ▶ Security and access?
- ▶ How to combine with semi- and unstructured content in publications?
- ▶ Aren't we giving away a key asset?
- ▶ How to drive standardization within the industry?