

Application needs of TVS & TSPD

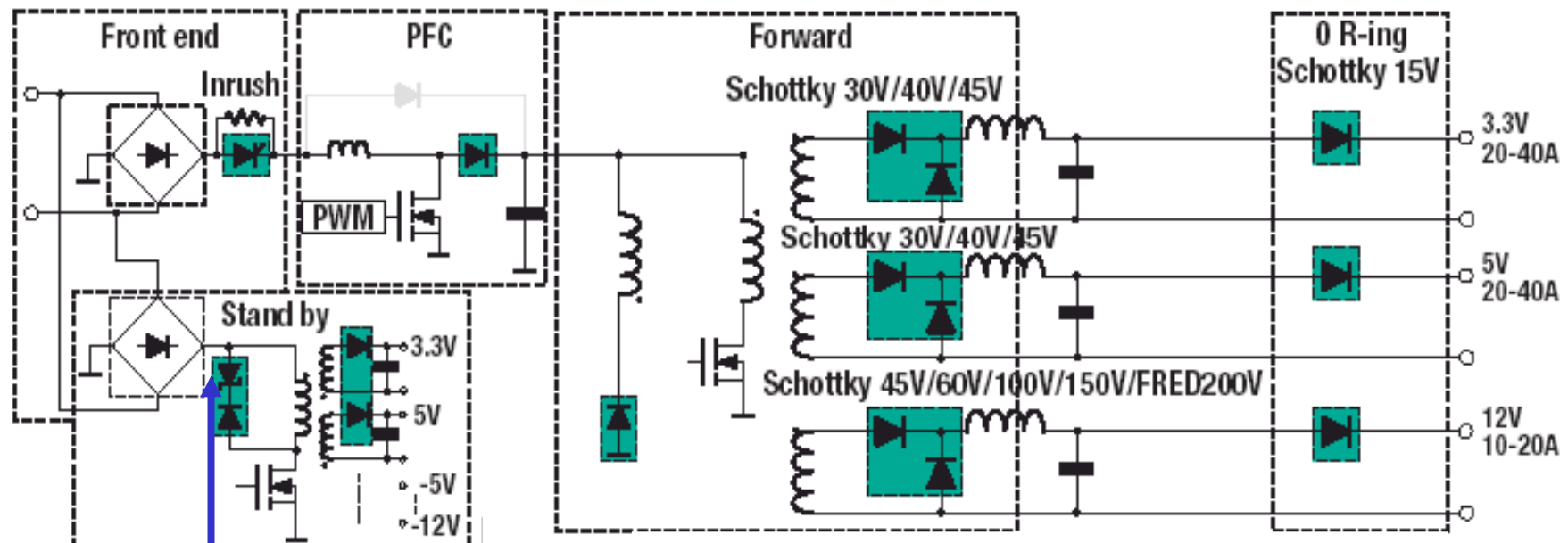
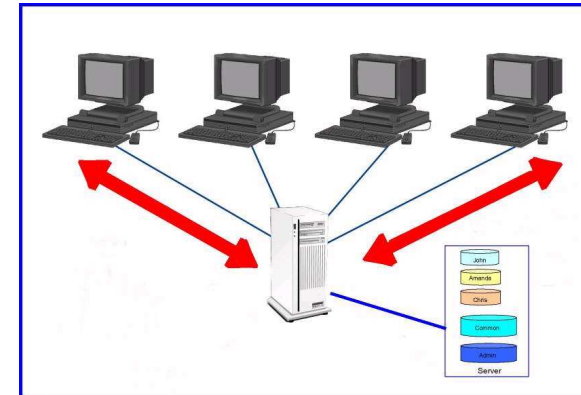
- **TVS**

- Computer : File server.
- Computer : Desktop.
- Computer & Consumer : Adaptor.
- Consumer : TV / Monitor.
- Consumer : Set-top Box.
- Telecom : Battery charger for mobile phone.
- DC/DC converters.
- Consumer : Digital still camera.

- **TSPD**

- T1 / E1 application.
- Terminals : Fax – Modem – Phone.
- xDSL.

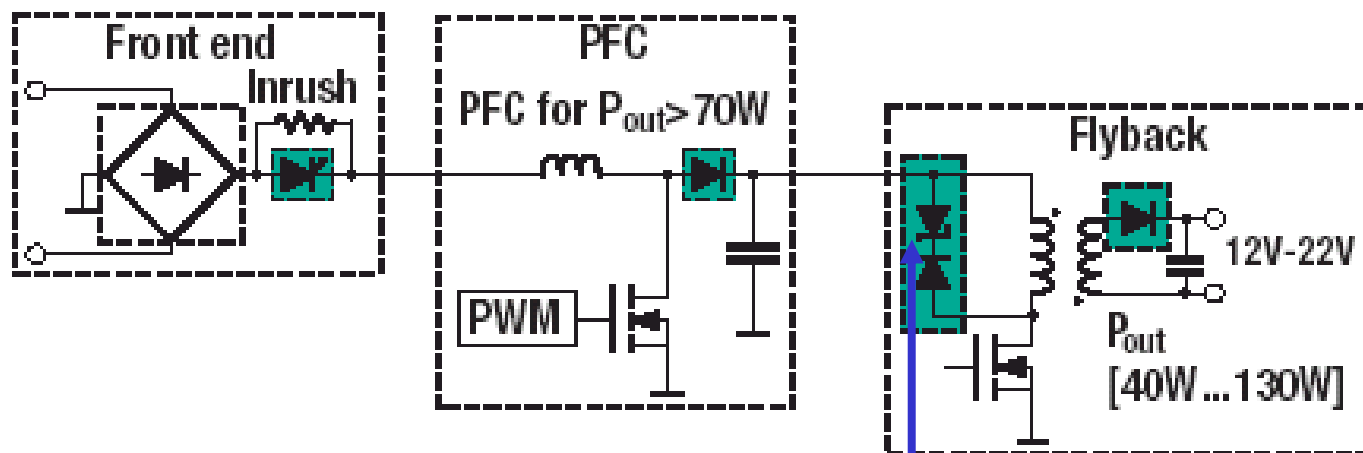
Computer : File server



P6KE150 / P6KE180 / P6KE200A / P6KE220
SMBJ130 / SMBJ150 / SMBJ160 / SMBJ170

Others : ESD protector : SMAJ5.0 ~ SMAJ24
SMBJ5.0 ~ SMBJ24
P4KE6.8 ~ P4KE30
P6KE6.8 ~ P6KE30

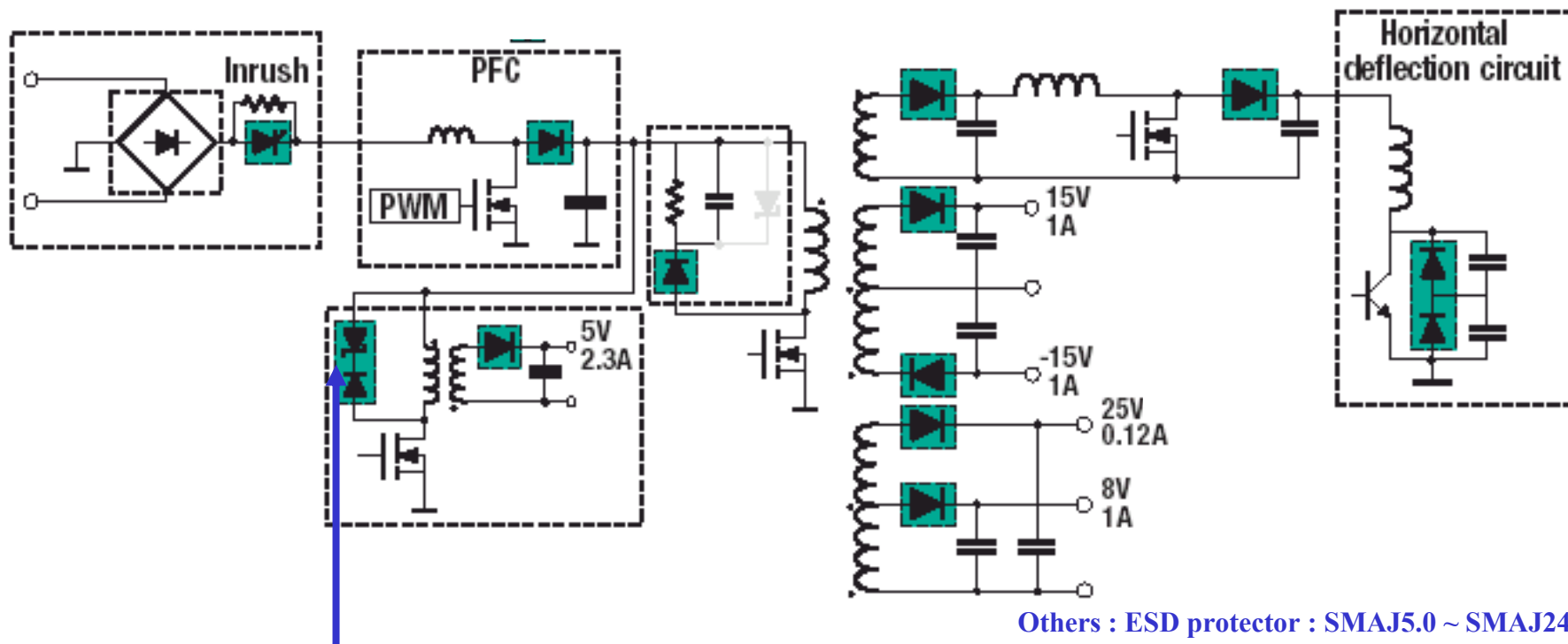
Computer & consumer : Adaptor



P6KE150 / P6KE180 / P6KE200A / P6KE220
SMBJ130 / SMBJ150 / SMBJ160 / SMBJ170

Others : ESD protector : SMAJ5.0 ~ SMAJ24
SMBJ5.0 ~ SMBJ24
P4KE6.8 ~ P4KE30
P6KE6.8 ~ P6KE30

Consumer : TV / Monitor



1.5KE170 / 1.5KE200

SMCJ160 / SMCJ170

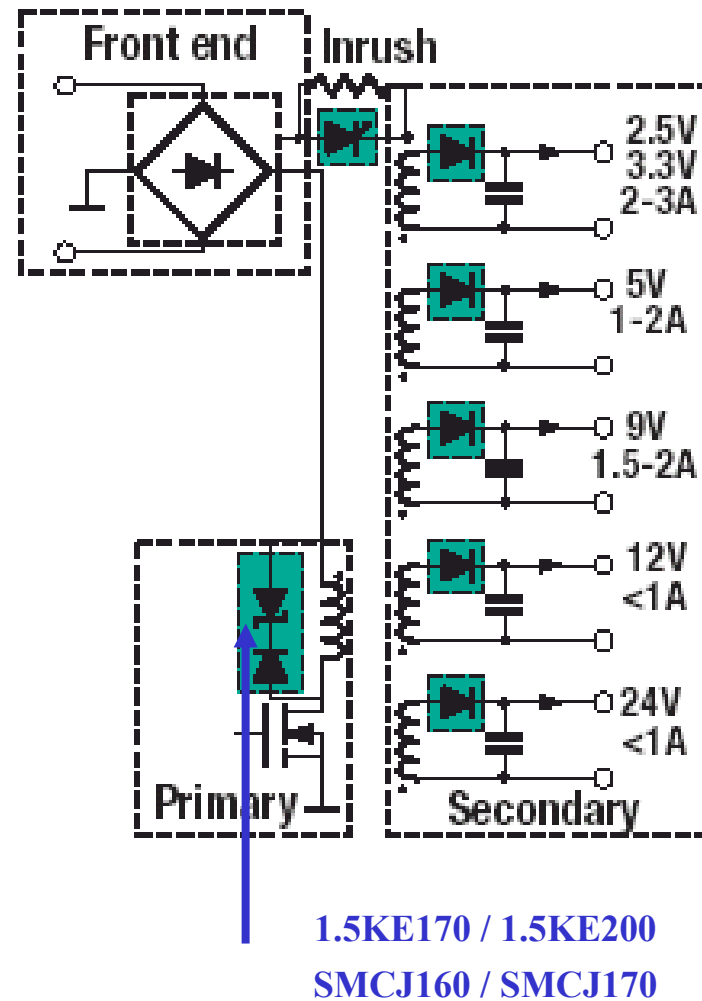
Others : ESD protector : SMAJ5.0 ~ SMAJ24

SMBJ5.0 ~ SMBJ24

P4KE6.8 ~ P4KE30

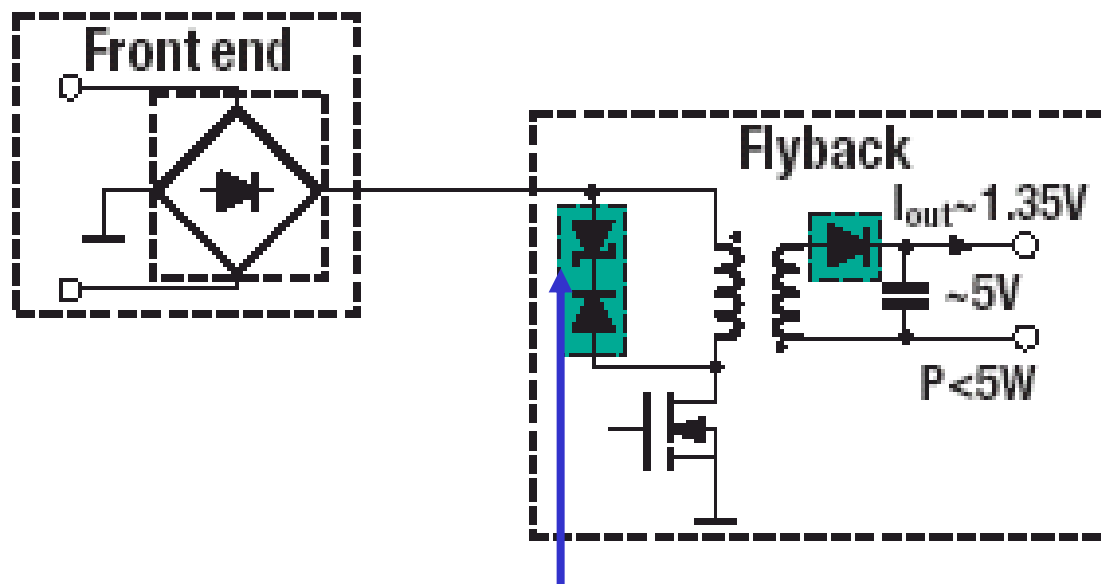
P6KE6.8 ~ P6KE30

Consumer : Set-top box



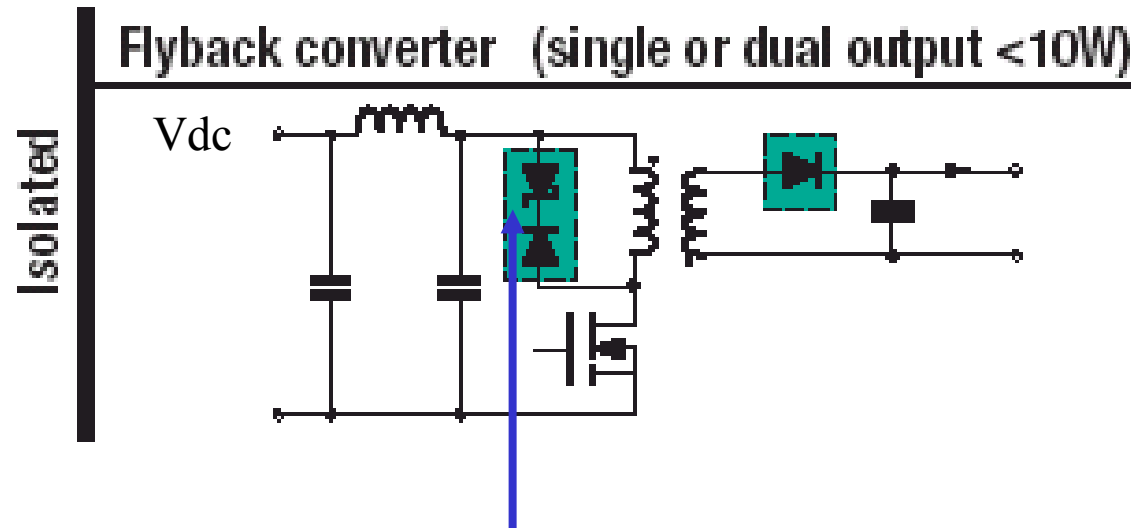
Others : ESD protector : SMAJ5.0 ~ SMAJ24
SMBJ5.0 ~ SMBJ24
P4KE6.8 ~ P4KE30
P6KE6.8 ~ P6KE30

Telecom : Battery charger for mobile phone



P6KE150 / P6KE180 / P6KE200A / P6KE220
SMBJ130 / SMBJ150 / SMBJ160 / SMBJ170

DC / DC converters embedded or open frame



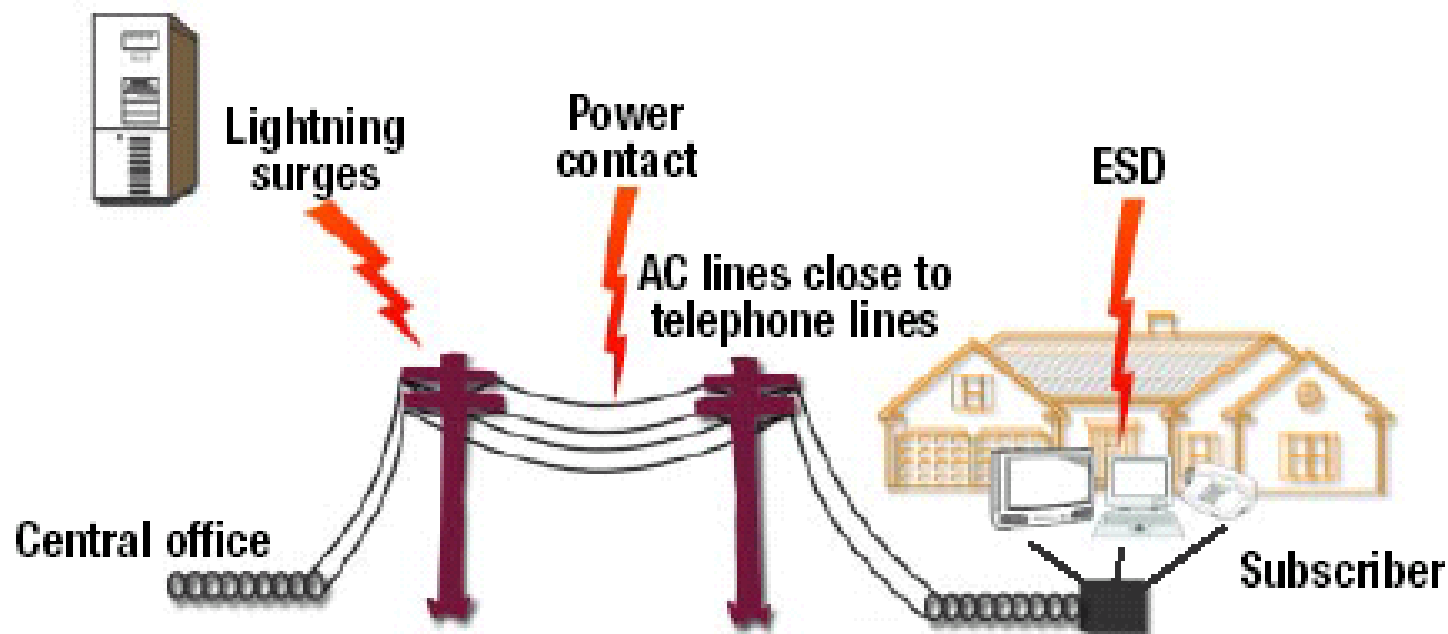
SMAJ5.0 ~ SMAJ58

SMBJ5.0 ~ SMBJ58

P4KE6.8 ~ P4KE68

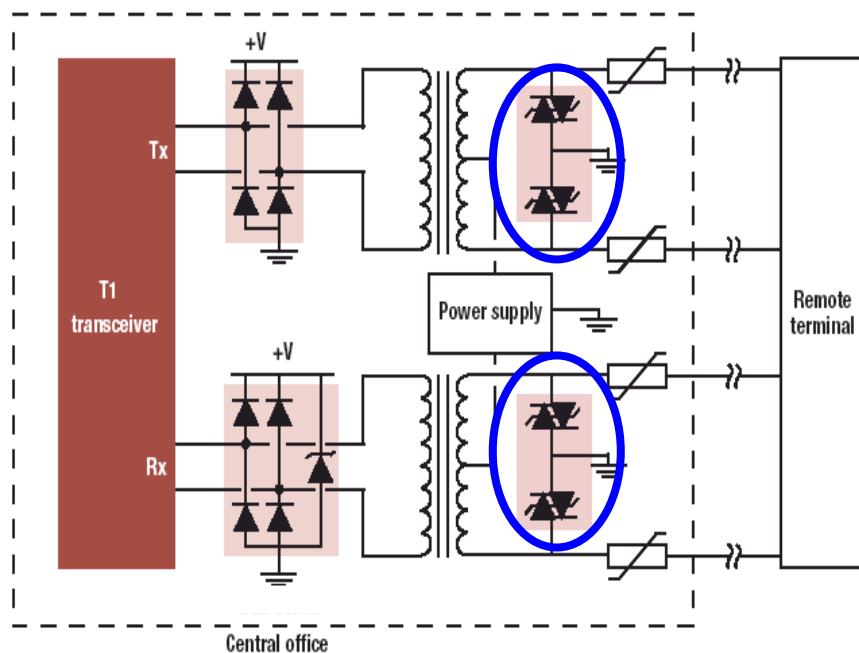
P6KE6.8 ~ P6KE68

Protection for Telecom wireline



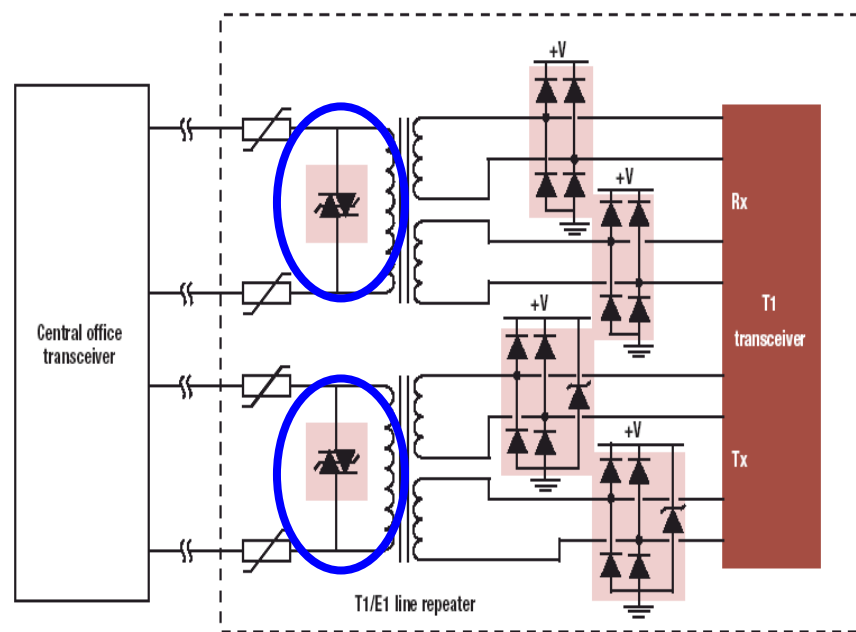
T1 / E1 application

Central office transceiver



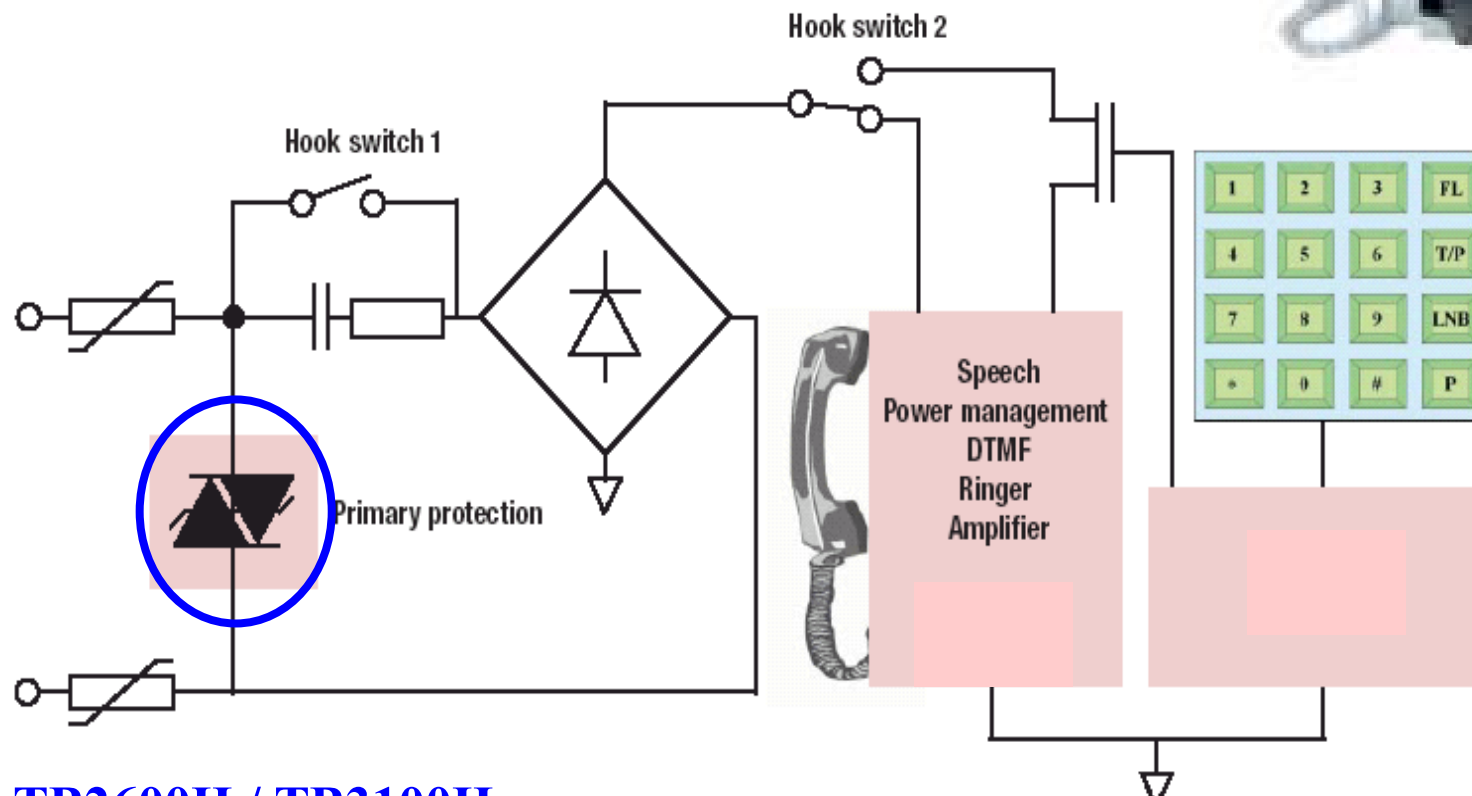
TB1500H / TB2600H / TB3100H

Repeater transceiver



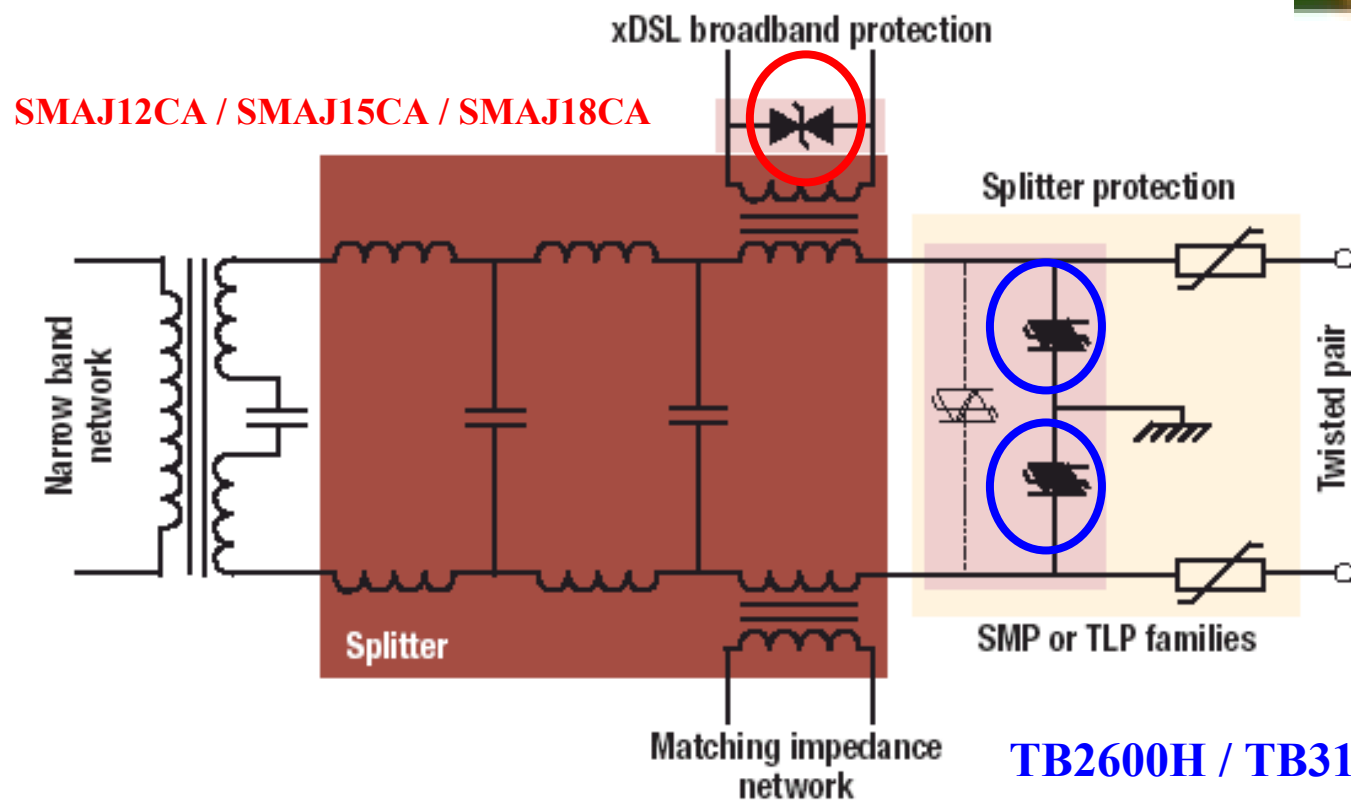
TB0720H / TB2600H / TB3100H

Terminals : Fax – Modem - Phone



TB2600H / TB3100H

xDSL application



TVS / TSPD

- **Product Advantage**
 - We own both Fab and Assembly's technology and factory.
 - Certification : AEC-A100:1996 ISO/TS16949:2002 ISO-14001:1996
 - **Wafer.**
 - High percentage of process with automatic equipments.
 - ONSemi transfereed their TSPD wafer technology to LITEON Keelung , included both equipmment and process.
 - **Assembly**
 - Hi percentage of process with automatic equipments.
 - OEM factory of ONSemi , STM , IR , Bourns, WPI , Fairchild...

TVS / TSPD

- Product Advantage**

Key Factor	TVS	MOV
Response	10^{-12}s	$5 \times 10^{-8}\text{s}$
Ageing	No	Yes
Operation temperature	175°C	115°C
Polarity	Uni / Bi Directional	Uni Directional
Leakage current	$5 \mu\text{A}$	$200 \mu\text{A}$
Clamping Factor (VC/VBR)	≤ 1.5	$\geq 7\sim 8$
Security	Good	Normal
ESD Capability	15KV	15KV