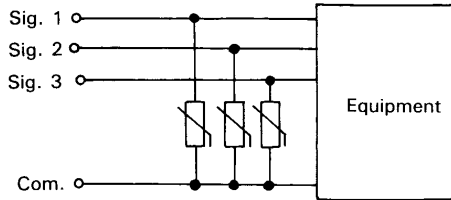




TRANSIENT/SURGE ABSORBER TRANSIENT VOLTAGE SURGE SUPPRESSORS

2. SIGNAL LINE AND TELEPHONE LINE SURGE PROTECTION

Signal Line

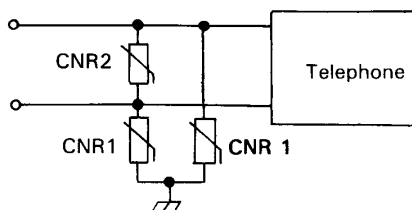


Selection Example:

Surge Protection of Signal Line

Signal Line Voltage	Part Number
DC 48V	CNR-□□D820K
DC 100V	CNR-□□D201K

Telephone Line



Surge Protection of Signal Line

Item	Part Number
CNR 1	CNR-□□D331K CNR-□□D361K
CNR 2	CNR-□□D151K

Note:

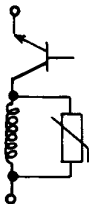
CNR has relatively high capacitance, special attention shall be paid for it in high frequency circuits.

Caution:

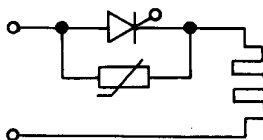
Refer to the power line protection.

3. Switching surge protection, semiconductor protection and contact spark suppression

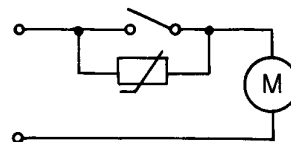
Switching surge protection



Semiconductor protection



Contact spark suppression



Selection Examples:

Voltage	Part Number
DC 12V	CNR-□□D220K
DC 24V	CNR-□□D390K
DC 100V	CNR-□□D151K
AC 120V	CNR-□□D221K
	CNR-□□D241K
	CNR-□□D271K

Note:

1. The Maximum Allowable Voltage to be higher than maximum operation voltage at all time.
2. Energy handling capability of CNR shall be selected by studying switching surge energy from the inductive load.

Caution:

1. Refer to the mentioned caution described in power line protection.
2. The relation between surge current repetition and CNR ratings is drawn in the CNR's impulse life characteristics.
3. Capacitor connection in parallel CNR is recommended for a contact spark suppression.