TOSHIBA PHOTOCOUPLER

TLP721(D4)SERIES

ATTACHMENT: SPECIFICATIONS FOR $\underline{VDE0884}$ OPTION: (D4)

Types: TLP721, TLP721F

Type designations for 'Option: (D4)', which are tested under VDE0884 requirements.

Ex. : TLP721 (D4-GR-LF4) D4 : VDE0884 option

GR: CTR rank LF4: lead bend

Note : Use Toshiba standard type number for safety standard application.

Ex. TLP721 (D4-GR-LF4) \rightarrow TLP721

VDE0884 ISOLATION CHARACTERISTICS

| DESCRIPTION | | | RATING | UNIT |
|---|-------------------|--|----------------------|-------|
| $ \begin{array}{llllllllllllllllllllllllllllllllllll$ | | | I-IV I-III | _ |
| Climatic Classification (DIN IEC68 Teil 1/09.80) | | 40 / 100 / 21 | _ | |
| Pollution Degree (DIN VDE0110 Teil 1/01.89) | | 2 | _ | |
| Maximum Operating Insulation Voltage | TLP721 TLP721F | V _{IORM} | 630 890 | Vpk |
| Input to output Test Voltage, Method A Vpr=1.5×V _{IORM} , Type and Sample Test tp=60s, Partial Discharge<5pC | TLP721 | - Vpr | 945 | · Vpk |
| | TLP721F | | 1335 | |
| Input to output Test Voltage, Method B $ \begin{array}{l} \text{Vpr}{=}1.875{\times}\text{V}_{\hbox{IORM}},\ 100\%\ \text{Production Test} \\ t_p{=}1\text{s, Partial Discharge}{<}5\text{pC} \end{array} $ | TLP721 | - Vpr | 1180 | Vpk |
| | TLP721F | | 1670 | |
| Highest Permissible Overvoltage (Transient Overvoltage, t_{pr} =10s) | | $v_{ m TR}$ | 6000 | Vpk |
| Safety Limiting Values (Max. permissible ratings in case of fault, also refer to thermal derating curve) | | | | |
| Current (Input current IF, $P_{si} = 0$) | Isi | 300 | mA | |
| Power (Output or Total Power Dissipation) | Psi | 500 | mW | |
| Temperature | Tsi | 150 | $^{\circ}\mathrm{C}$ | |
| Insulation Resistance, $V_{IO} = 500V$, $Ta = 25^{\circ}C$ $V_{IO} = 500V$, $Ta = T_{si}$ | Rsi | $\stackrel{\geq}{=} 10^{12} \ \stackrel{\geq}{=} 10^9$ | Ω | |

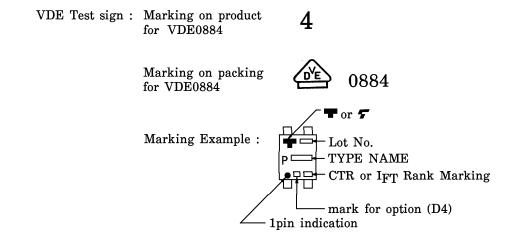
• This data sheet refers to TLP721 (D4, M), TLP721F (D4, M) that previously has a white-resin mold and have been changed. When designing new products please use black mold-resin devices.

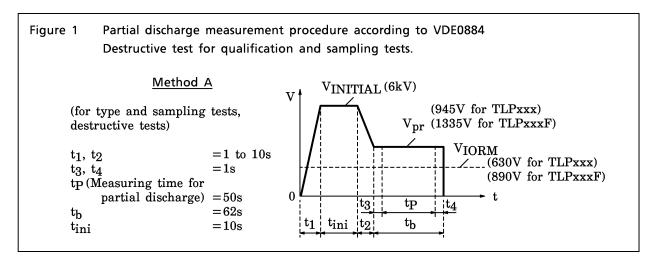
INSULATION RELATED SPECIFICATIONS

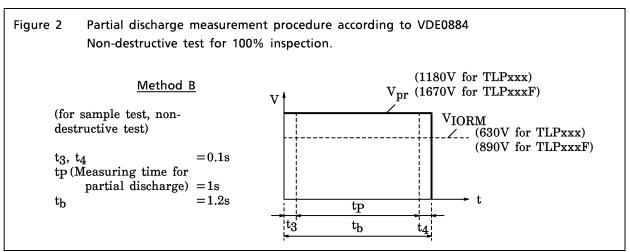
| | | 7.62mm pitch TLP721 | 10.16mm pitch TLP721F |
|-------------------------------|-----|---------------------------------|--------------------------|
| Minimum Creepage Distance (*) | Cr | 7.0mm | 8.0mm |
| Minimum Clearance (*) | Cl | 7.0mm | 8.0mm |
| Minimum Insulation Thickness | ti | 0.5mm | |
| Comperative Tracking Index | CTI | 175 | |
| (DIN IEC112/VDE0303, Part 1) | CII | (VDE0110 Teil 1/01.89 Group Ⅱa) | |

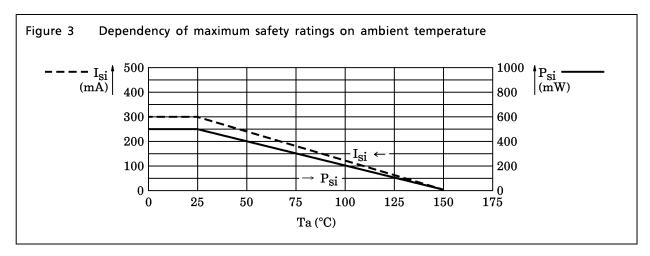
- ((*) in accordance with DIN VDE0110 Teil 1/01.89, Table 2, & 4)
 - (*1) If a printed circuit is incorporated, the creepage distance and clearance may be reduced below this value (e. g. at a standard distance between soldering eye centres of 7.5mm). If this is not permissible, the user shall take suitable measures.
 - (*2) This photocoupler is suitable for 'safe electrical isolation' only within the safety limit data.

Maintenance of the safety data shall be ensured by means of protective circuits.









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