TOSHIBA Photocoupler

TLP721(D4)SERIES

Attachment: Specifications for <u>VDE0884</u> option: (D4)

Types: TLP721, TLP721F

Type designations for 'option: $(\underline{D4})$ ', 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

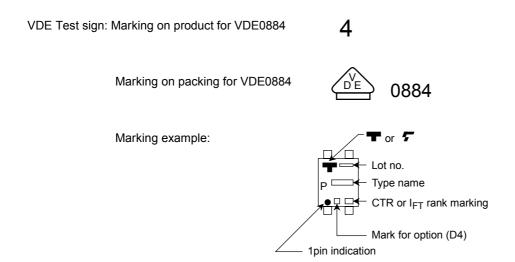
Description		Symbol	Rating	Unit
Application classification (DIN VDE0110 teil 1 / 01.89, table 1) for rated mains voltage ≤ 300 V _{rms} for rated mains voltage ≤ 600 V _{rms}			I–IV I–III	_
Climatic classification (DIN IEC68 teil 1 / 09.80)			40 / 100 / 21	-
Pollution degree (DIN VDE0110 teil 1 / 01.89)			2	_
Maximum operating insulation voltage	TLP721	V _{IORM}	630	- Vpk
	TLP721F		890	
Input to output test voltage, method A Vpr = $1.5 \times V_{IORM}$, type and sample test $t_p = 60s$, partial discharge < $5pC$	TLP721	Vpr	945	- Vpk
	TLP721F		1335	
Input to output test voltage, method B Vpr = $1.875 \times V_{IORM}$, 100% production test t_p = $1s$, partial discharge < $5pC$	TLP721	Vpr	1180	Vpk
	TLP721F		1670	
Highest permissible overvoltage (transient overvoltage, t _{pr} = 10s)		V _{TR}	6000	Vpk
Safety limiting values (max. permissible ratings in case of fault, also refer to thermal derating curve) current (input current I_F , $P_{Si} = 0$) power (output or total power dissipation) temperature		I _{si} P _{si} T _{si}	300 500 150	mA mW °C
Insulation resistance, V_{IO} = 500V, Ta = 25°C V_{IO} = 500V, Ta = T_{Si}		R _{si}	≥10 ¹² ≥10 ⁹	Ω

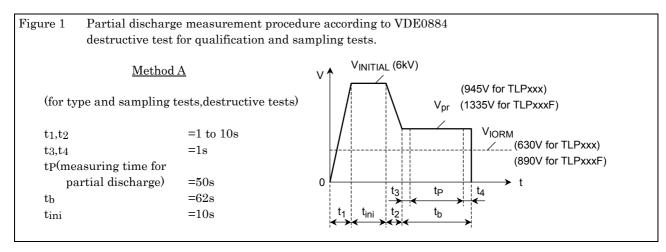
• This data sheet refers to TLP721 (D4, M), TLP721F (D4, M) that previously has a white–resin mold and have been changed. When designing new products please use black mold–resin devices.

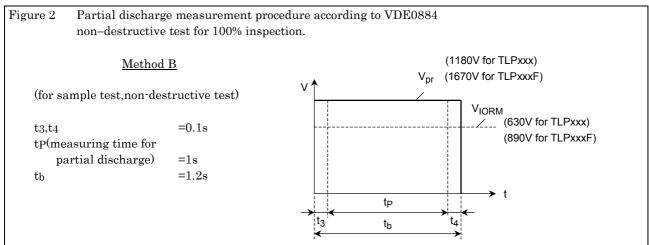
Insulation Related Specifications

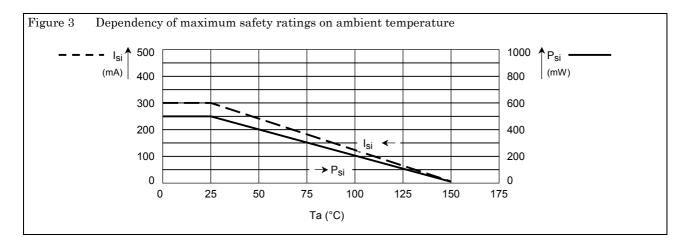
		7.62 mm pitch TLP721	10.16 mm pitch TLP721F
Minimum creepage distance (*)	Cr	7.0 mm	8.0 mm
Minimum clearance (*)	CI	7.0 mm	8.0 mm
Minimum insulation thickness	ti	0.5 mm	
Comperative tracking index (DIN IEC112 / VDE0303, part 1)	СТІ	175 (VDE0110 teil 1 / 01.89 group III a)	

- ((*) 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 7.5 mm). 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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RESTRICTIONS ON PRODUCT USE

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