TOSHIBA PHOTOCOUPLER

T L P 7 2 1 (D 4) S E R I E S

ATTACHMENT : SPECIFICATIONS FOR <u>VDE0884</u> OPTION : (D4)

Types : TLP721, TLP721F

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

Ex.	:	TLP721	(D4-GR-LF4)
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$\mathbf{D4}$:	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
$\begin{array}{l} \mbox{Application Classification} \\ \mbox{(DIN VDE0110 Teil 1/01.89, Table 1)} \\ \mbox{for rated mains voltage} \leq 300 V_{rms} \\ \mbox{for rated mains voltage} \leq 600 V_{rms} \end{array}$		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	TLP721	– Vpr	945	• Vpk
$Vpr=1.5 \times V_{IORM}$, Type and Sample Test $tp=60s$, Partial Discharge<5pC	TLP721F		1335	
Input to output Test Voltage, Method B	TLP721	– Vpr	1180	• Vpk
$Vpr=1.875 \times V_{IORM}$, 100% Production Test $t_p=1s$, Partial Discharge <5pC	TLP721F		1670	
Highest Permissible Overvoltage (Transient Overvoltage, t _{pr} =10s)	V _{TR}	6000	Vpk	
Safety Limiting Values (Max. permissible ratings 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	°C	
Insulation Resistance, $V_{IO} = 500V$, $Ta = 25^{\circ}C$ $V_{IO} = 500V$, $Ta = T_{si}$	Rsi	$\ge 10^{12} \ \ge 10^9$	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)		(VDE0110 Teil 1/01.89 Group Ⅲa)	

((*) 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.



TOSHIBA







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