

TOSHIBA PHOTOCOUPLER

TLP665(D4)SERIES

ATTACHMENT : SPECIFICATIONS FOR VDE0884 OPTION : (D4)

Types : TLP665G, TLP665J, TLP665GF, TLP665JF, TLP666G, TLP666J, TLP666GF, TLP666JF

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

Ex.	:	TLP665G (D4-T7)	D4	:	VDE0884 option
			T7	:	IFT rank name

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

Ex. TLP665G (D4-T7) → TLP665G, TLP666JF (D4) → TLP666JF



VDE0884 ISOLATION CHARACTERISTICS

DESCRIPTION	SYMBOL	RATING	UNIT
Application Classification (DIN VDE0109 / 12.83, Table 1) for rated mains voltage $\leq 300V_{rms}$ for rated mains voltage $\leq 600V_{rms}$		I-IV I-III	—
Climatic Classification (DIN IEC68 Teil 1 / 09.80)		55 / 100 / 21	—
Pollution Degree (DIN VDE0109 / 12.83)		2	—
Maximum Operating Insulation Voltage	V_{IORM}	630	V_{pk}
Input to output Test Voltage, Method A $V_{pr}=1.2 \times V_{IORM}$, Type and Sample Test $t_p=60s$, Partial Discharge $< 5pC$	V_{pr}	760	V_{pk}
Input to output Test Voltage, Method B $V_{pr}=1.6 \times V_{IORM}$, 100% Production Test $t_p=1s$, Partial Discharge $< 5pC$	V_{pr}	1000	V_{pk}
Highest Permissible Overvoltage (Transient Overvoltage, $t_{pr}=10s$)	V_{TR}	6000	V_{pk}
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}	400 700 150	mA mW °C
Insulation Resistance at T_{Si} , $V_{IO}=500V$	R_{Si}	$\geq 10^9$	Ω

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INSULATION RELATED SPECIFICATIONS

			 7.62mm pitch TLPxxx type	 10.16mm pitch TLPxxxF type
Minimum Creepage Distance	(*)	Cr	7.0mm	8.0mm
Minimum Clearance	(*)	Cl	7.0mm	8.0mm
Minimum Insulation Thickness		ti	0.5mm	
Comperative Tracking Index (DIN IEC112 / VDE0303, Part 1)		CTI	175 (VDE0109 / 12.83 Group III a)	

((*) in accordance with DIN VDE0109 / 12.83, 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.

VDE Test sign : Marking on product
for VDE0884



Marking on packing
for VDE0884



0884

Figure 1 Partial discharge measurement procedure according to VDE0884
Destructive test for qualification and sampling tests.

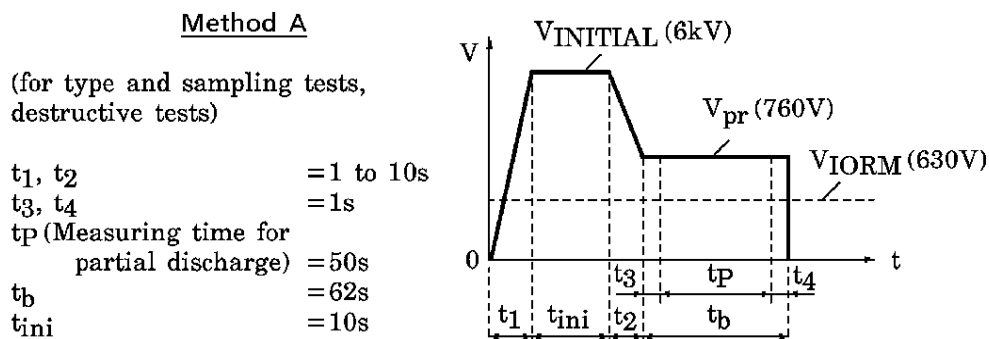


Figure 2 Partial discharge measurement procedure according to VDE0884
Non-destructive test for 100% inspection.

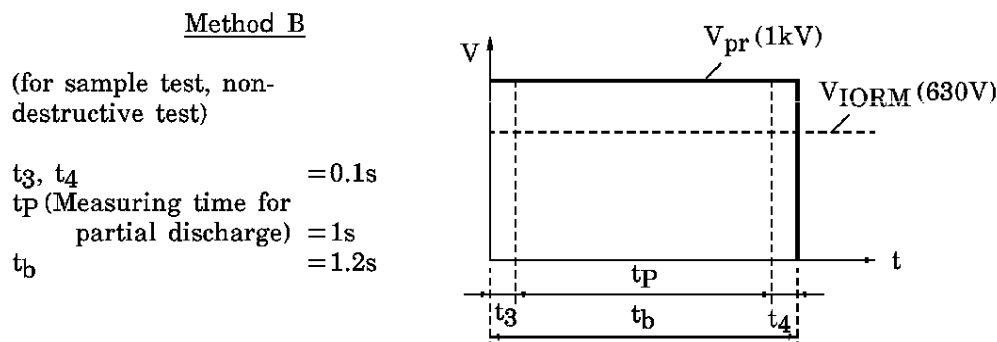


Figure 3 Dependency of maximum safety ratings on ambient temperature

