

TENTATIVE

TOSHIBA PHOTOCOUPLER GaAs IRED + PHOTO-TRIAC

TLP763J

OFFICE MACHINE

HOUSEHOLD USE EQUIPMENT

TRIAC DRIVER

SOLID STATE RELAY

The TOSHIBA TLP763J consists of a GaAs infrared LED optically coupled to a zero voltage crossing turn-on photo-triac in a 6 lead plastic DIP.

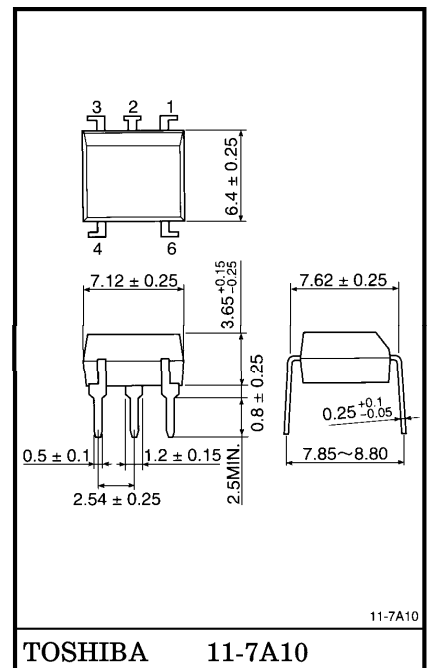
- Peak Off-State Voltage : 600V (MIN.)
- Trigger LED Current : 10mA (MAX.)
- On-State Current : 100mA (MAX.)
- Isolation Voltage : 4000Vrms (MIN.)
- UL Recognized : UL1577, File No. E67349
- BSI Approved : BS EN60065 : 1994, Certificate No. 7831
BS EN60065 : 1992, Certificate No. 7832
- SEMKO Approved : SS-EN60065 (EN60065, 1993)
SS-EN60950 (EN60950, 1992)
SS-EN60335 (EN60335, 1988)
Certificate No. 9522145
- Option (D4) type VDE Approved : DIN VDE 0884, 06. 92
Certificate No. 91803
Maximum Operating Insulation Voltage : 890V_{PK}
Highest Permissible Over Voltage : 6000V_{PK}

(Note) When a VDE0884 approved type is needed, please designate the "Option (D4)"

	7.62mm pich TLP763J type	10.16mm pich TLP763JF type
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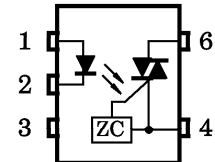
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|------------------------|----------------|--------------|
| ● Creepage Distance | : 7.0mm (Min.) | 8.0mm (Min.) |
| Clearance | : 7.0mm (Min.) | 8.0mm (Min.) |
| Internal Creepage Path | : 4.0mm (Min.) | 4.0mm (Min.) |
| Insulation Thickness | : 0.5mm (Min.) | 0.5mm (Min.) |

Unit in mm



Weight : 0.42g

PIN CONFIGURATION (TOP VIEW)



- 1 : ANODE
- 2 : CATHODE
- 3 : NC
- 4 : TRIAC 1
- 6 : TRIAC 2

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
LED	Forward Current	I _F	50	mA
	Forward Current Derating (Ta ≥ 53°C)	ΔI _F / °C	-0.7	mA / °C
	Peak Forward Current (100μs pulse, 100pps)	I _{FP}	1	A
	Reverse Voltage	V _R	5	V
	Junction Temperature	T _j	125	°C
DETECTOR	Off-State Output Terminal Voltage	V _{DRM}	600	V
	On-State RMS Current	Ta = 25°C	100	mA
		Ta = 70°C	50	
	On-State Current Derating (Ta ≥ 25°C)	ΔI _T / °C	-1.1	mA / °C
	Peak On-State Current (100μs pulse, 120pps)	I _{TP}	2	A
	Peak Nonrepetitive Surge Current (PW = 10ms, DC = 10%)	I _{TSM}	1.2	A
	Junction Temperature	T _j	115	°C
Storage Temperature Range	T _{stg}	-55~125	°C	
Operating Temperature Range	T _{opr}	-40~100	°C	
Lead Soldering Temperature (10s)	T _{sol}	260	°C	
Isolation Voltage (AC, 1 min., R.H. ≤ 60%)	BV _S	4000	V _{rms}	

RECOMMENDED OPERATING CONDITIONS

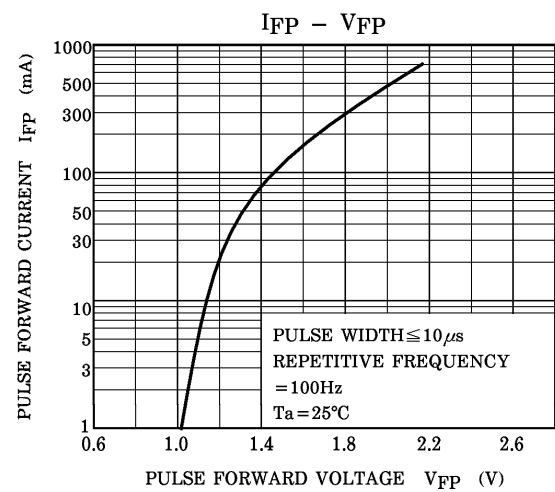
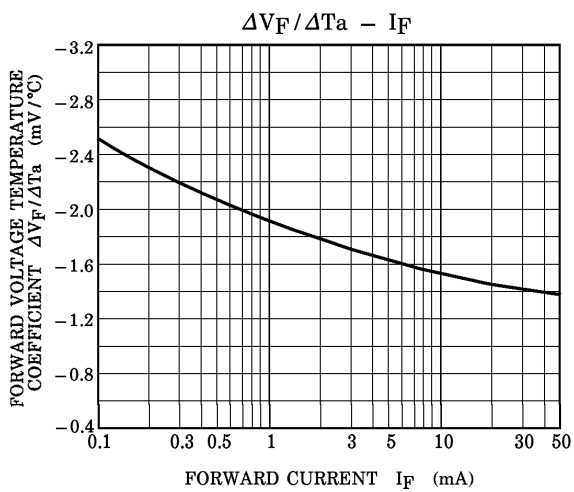
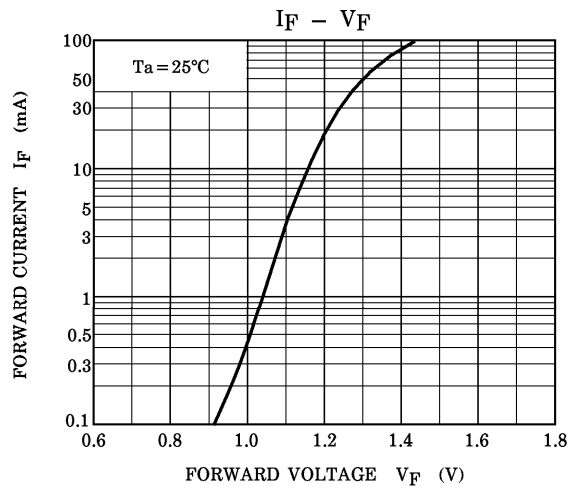
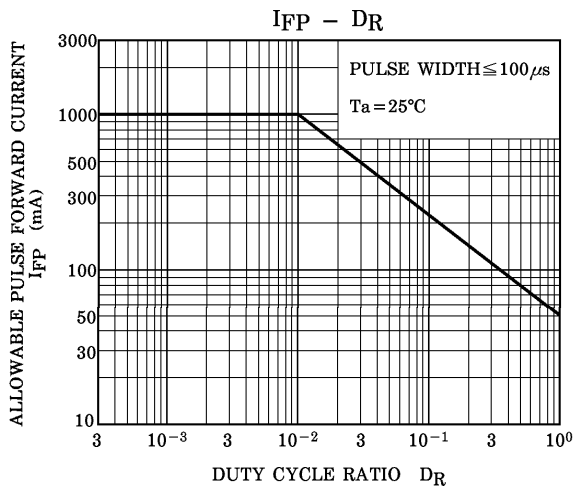
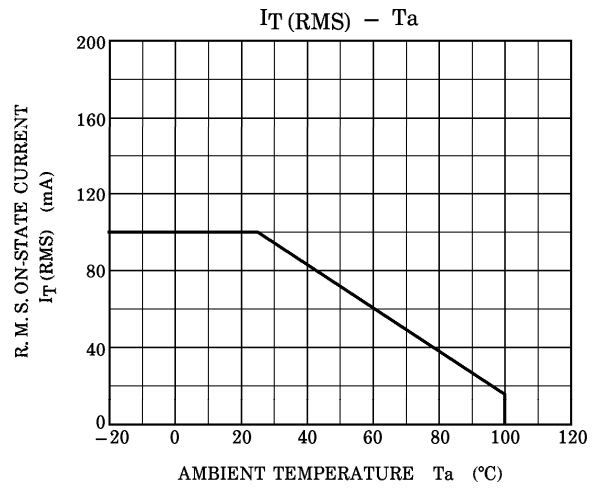
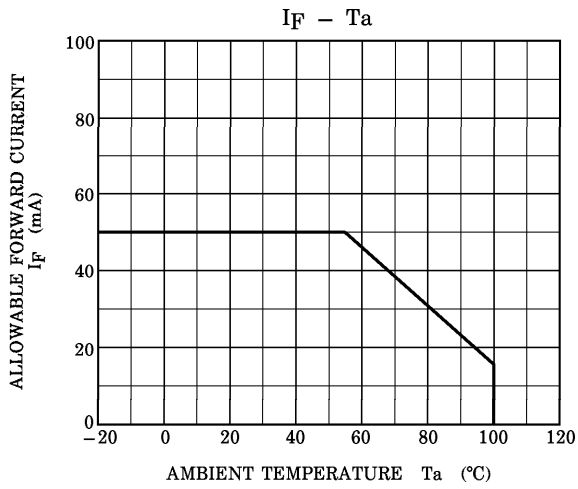
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V _{AC}	—	—	240	V _{ac}
Forward Current	I _F	15	20	25	mA
Peak On-State Current	I _{TP}	—	—	1	A
Operating Temperature	T _{opr}	-25	—	85	°C

INDIVIDUAL ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
LED	Forward Voltage	V _F	I _F = 10mA	1.0	1.15	1.3	V
	Reverse Current	I _R	V _R = 5V	—	—	10	μA
	Capacitance	C _T	V = 0, f = 1MHz	—	30	—	pF
DETECTOR	Peak Off-State Current	I _{DRM}	V _{DRM} = 600V	—	10	1000	nA
	Peak On-State Voltage	V _{TM}	I _{TM} = 100mA	—	1.7	3.0	V
	Holding Current	I _H	—	—	0.6	—	mA
	Critical Rate of Rise of Off-State Voltage	dv / dt	V _{in} = 240V, Ta = 85°C	—	500	—	V / μs
	Critical Rate of Rise of Commutating Voltage	dv / dt (C)	I _T = 15mA V _{in} = 60Vrms	—	0.2	—	V / μs

COUPLED ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Trigger LED Current	I _{FT}	V _T = 6V	—	—	10	mA
Inhibit Voltage	V _{IH}	I _F = Rated I _{FT}	—	—	50	V
Leakage in Inhibited State	I _{IH}	I _F = Rated I _{FT} V _T = Rated V _{DRM}	—	200	600	μA
Capacitance (Input to Output)	C _S	V _S = 0, f = 1MHz	—	0.8	—	pF
Isolation Resistance	R _S	V _S = 500V	1 × 10 ¹²	10 ¹⁴	—	Ω
Isolation Voltage	B _{V_S}	AC, 1 minute	4000	—	—	V _{rms}
		AC, 1 second, in oil	—	10000	—	
		DC, 1 minute, in oil	—	10000	—	V _{dc}



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