

TLP665J(S)

OFFICE MACHINE
 HOUSEHOLD USE EQUIPMENT
 TRIAC DRIVERSOLID STATE RELAY

TOSHIBA TLP665J(S) consists of a photo-triac optically coupled to a gallium arsenide infrared emitting diode in a six lead plastic DIP package.

- Peak Off-State Voltage : 600V(Min)
- Trigger LED Current : 10mA(Max)
- On-State Current : 100mA(Max)
- Isolation Voltage : 5000Vrms(Min)
- UL Recognized : UL1577, File No. E67349
- SEMKO Approved : SS EN60065, File No.9841102
 SS EN60950, File No.9841102
- BSI Approved : BS EN60065, File No.8385
 BS EN60950, File No.8386
- Option(D4)type
 VDE Approved : DIN VDE0884
 Certificate No.101399

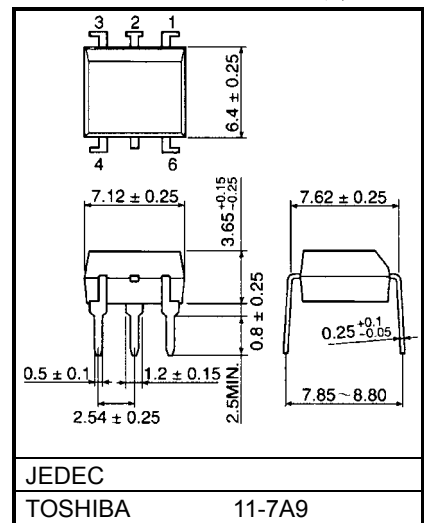
Maximum Operating Insulation Voltage : 890V_{PK}
 Highest Permissible Over Voltage : 8000 V_{PK}

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

•Construction Mechanical Rating

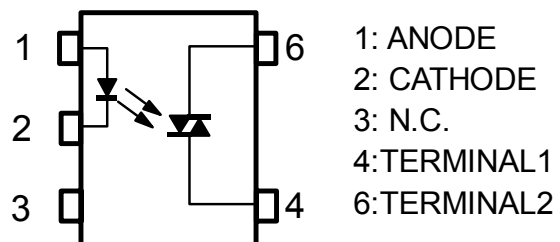
	7.62 mm pich standard type	10.16 mm pich TLPXXXX type
Creepage Distance	7.0 mm (Min)	8.0 mm (Min)
Clearance	7.0 mm (Min)	8.0 mm (Min)
Insulation Thickness	0.5 mm (Min)	0.5 mm (Min)

単位: mm



Weight: 0.39 g

PIN CONFIGURATION (TOP VIEW)



MAXIMUM RATINGS(Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
LED	Forward Current	I_F	50	mA
	Forward Current Derating (Ta≥53°C)	$\Delta I_F / ^\circ C$	-0.7	mA / °C
	Peak Forward Current (100µs pulse, 100pps)	I_{FP}	1	A
	Reverse Voltage	V_R	5	V
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)	$\Delta I_T / ^\circ C$	-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
Operating Temperature Range	T_{opr}	-40~100	°C	
Storage Temperature Range	T_{stg}	-55~125	°C	
Lead Soldering Temperature (10s)	T_{sol}	260	°C	
Isolation Voltage (AC,1min. , R.H.≤60%)	(Note 2) BV_S	5000	Vrms	

(Note 2) Pins 1, 2 and 3 shorted together and pin 4 and pin 6 shorted together.

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

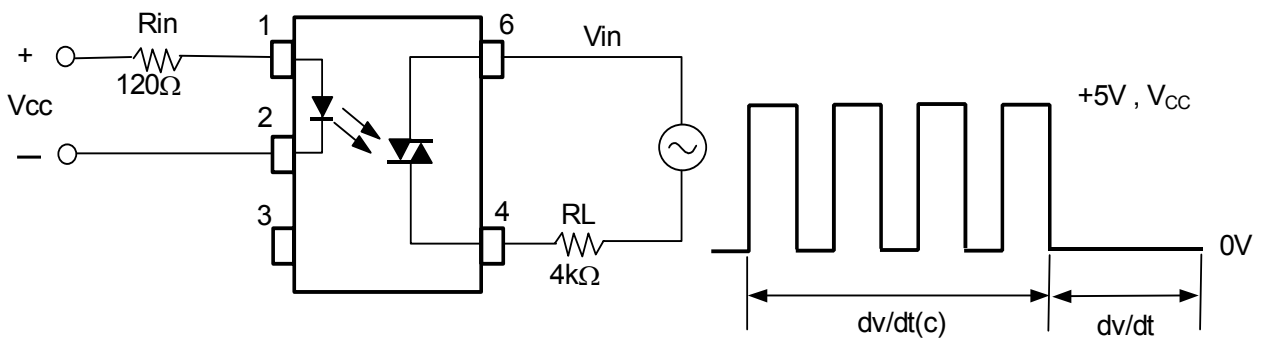
ELECTRICAL CHARACTERISTICS(Ta=25°C)

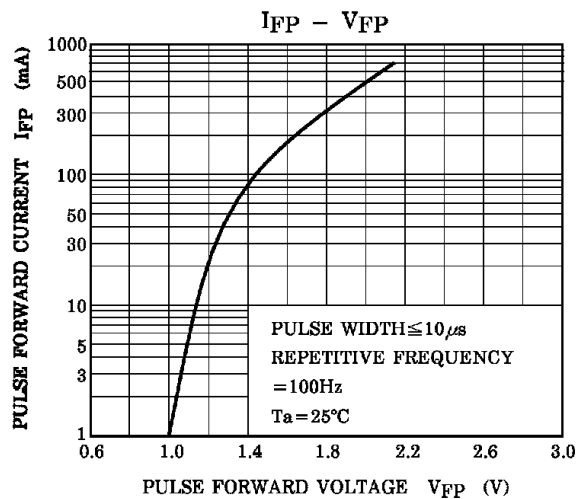
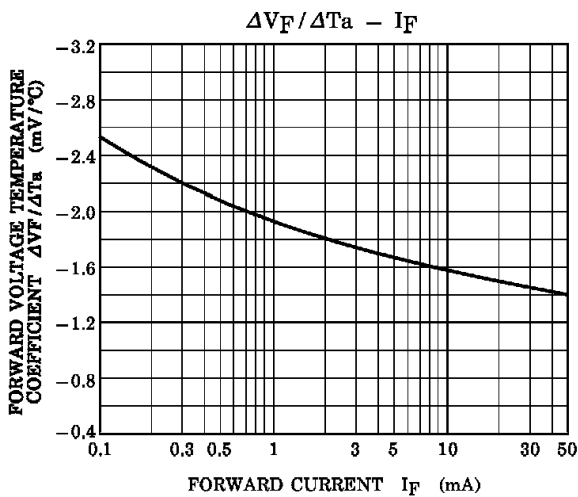
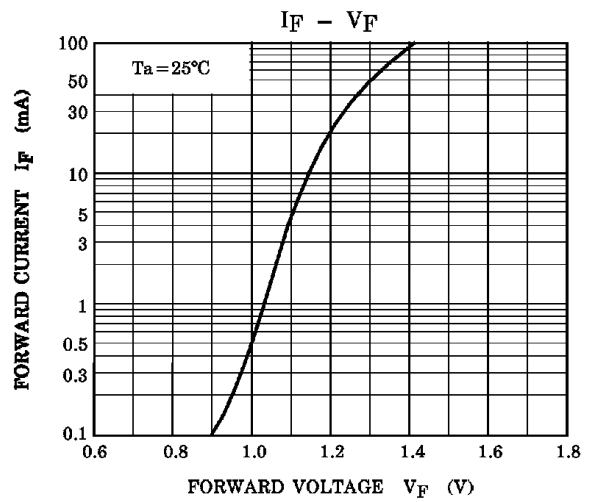
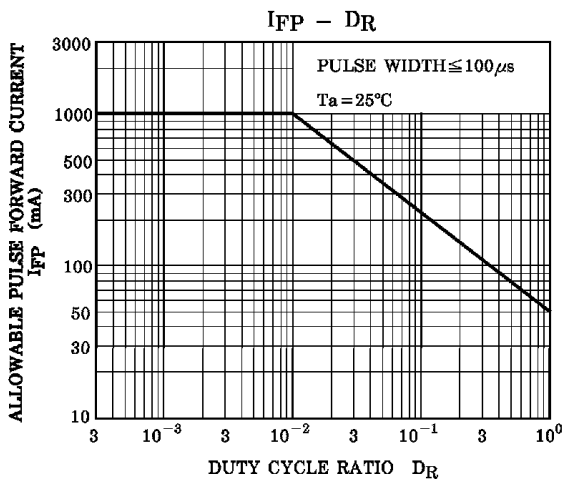
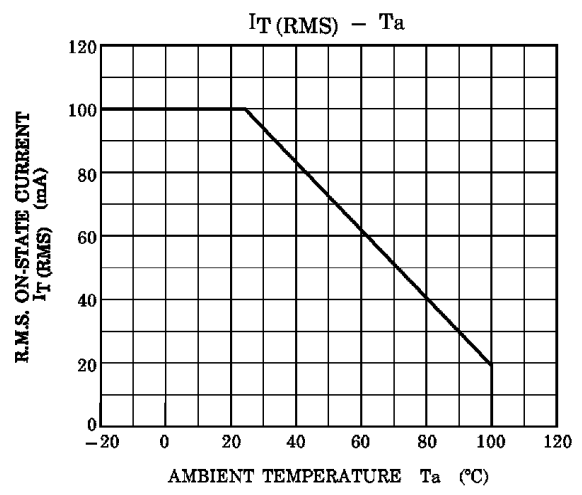
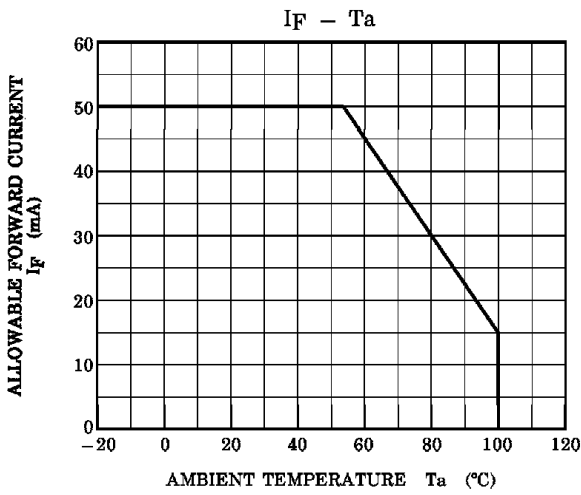
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
LED	Forward Voltage	V_F	$I_F = 10 \text{ mA}$	1.0	1.15	1.3	V
	Reverse Current	I_R	$V_R = 5 \text{ V}$	—	—	10	μA
	Capacitance	C_T	$V = 0, f=1\text{MHz}$	—	30	—	pF
DETECTOR	Peak Off-State Current	I_{DRM}	$V_{DRM}=600\text{V}$	—	10	1000	nA
	Peak On-State Voltage	V_{TM}	$I_{TM}=100\text{mA}$	—	1.7	3.0	V
	Holding Current	I_H	—	—	1.0	—	mA
	Critical Rate of Rise of Off-State Voltage	dv/dt	$V_{in}=240\text{Vrms}, T_a=85^\circ\text{C}$ (Note3)	—	500	—	$\text{V}/\mu\text{s}$
	Critical Rate of Rise of Commutating Voltage	$dv/dt(c)$	$V_{in}=60\text{Vrms}, I_T=15\text{mA}$ (Note3)	—	0.2	—	$\text{V}/\mu\text{s}$

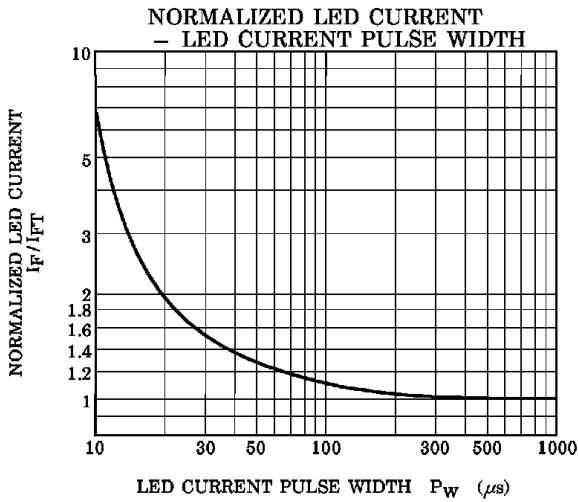
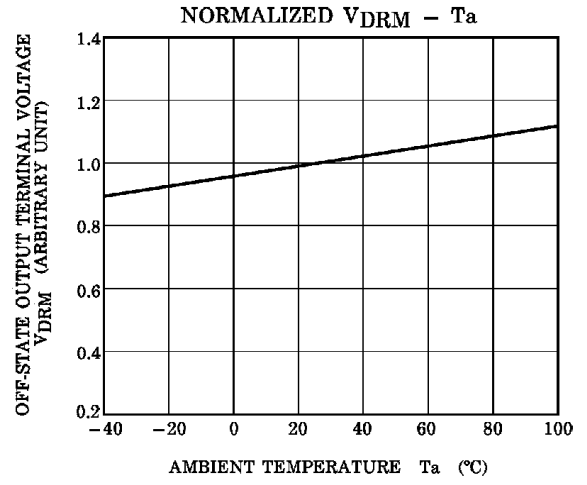
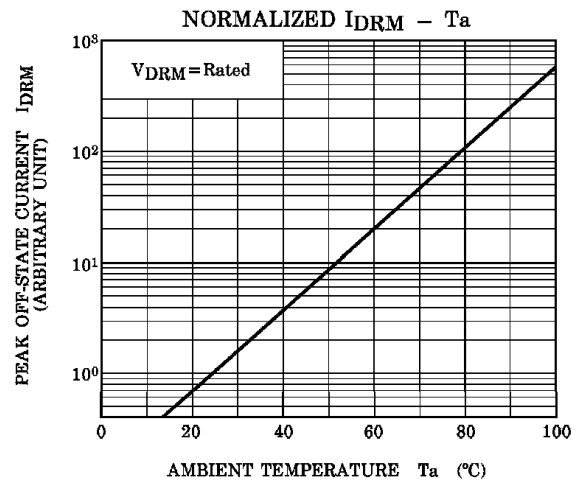
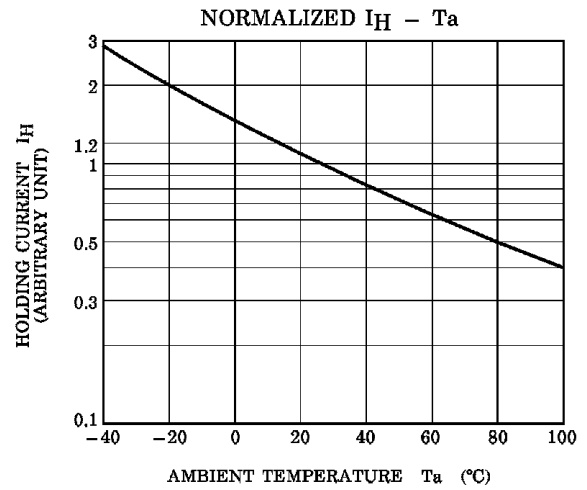
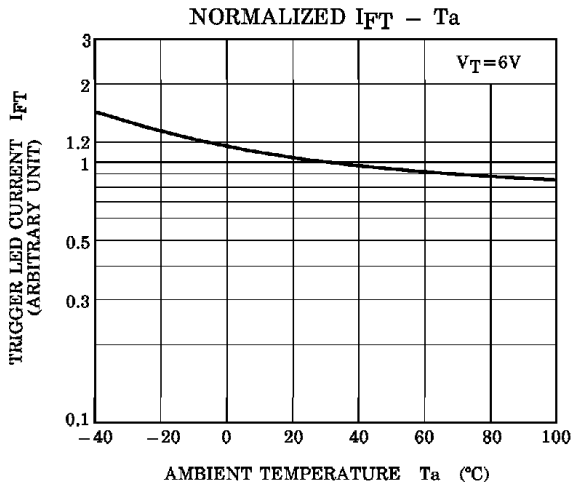
COUPLED ELECTRICAL CHARACTERISTICS(Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Trigger LED Current	I_{FT}	$V_T=6\text{V}$	—	5	10	mA
Capacitance (Input to Output)	C_S	$V_S=0, f=1\text{MHz}$	—	0.8	—	pF
Isolation Resistance	R_S	$V_S=500\text{V}$	1×10^{12}	10^{14}	—	Ω
Isolation Voltage	BV_S	AC, 1minute	5000	—	—	Vrms
		AC, 1second,in oil	—	10000	—	
		DC, 1minute,in oil	—	10000	—	Vdc

(Note 3)dv/dt TEST CIRCUIT







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