

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.

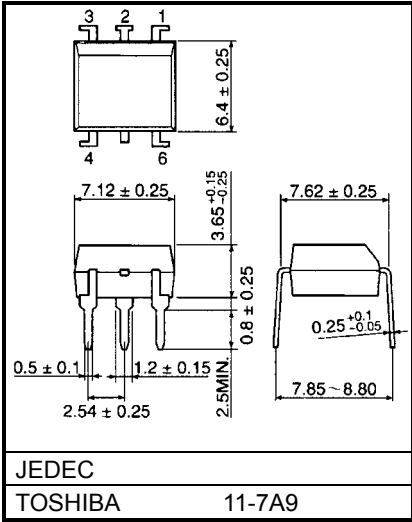
- Peak Off-State Voltage : 600V(Min)
 - Trigger LED Current : 10mA(Max)
 - On-State Current : 100mA(Max)
 - Isolation Voltage : 5000Vrms(Min)
 - UL Recognized : UL1577,File No.E67349
 - SEMKO Approved : SS EN60065, File No.9841102
SS EN60950, File No.9841102
 - BSI Approved : BS EN60065, File No.8385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

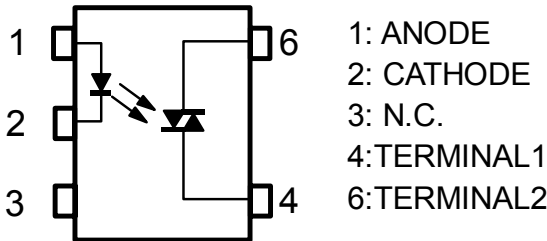
	7.62 mm pich standard type	10.16 mm pich TLPXXXX type
Creepage Distance	7.0 mm (Min)	8.0 mm (Min)
Clearance	7.0 mm (Min)	8.0 mm (Min)
Insulation Thickness	0.5 mm (Min)	0.5 mm (Min)

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)			ΔI _F / °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	I _{T(RMS)}	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
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

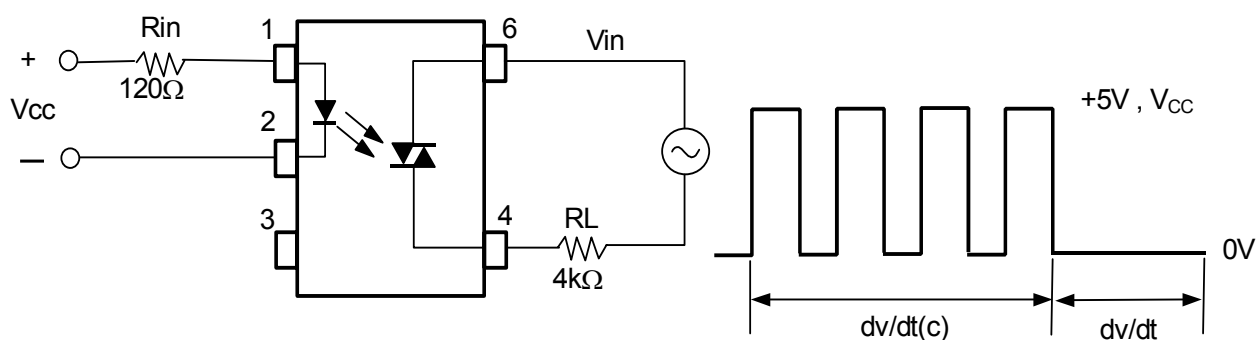
ELECTRICAL CHARACTERISTICS(Ta=25°C)

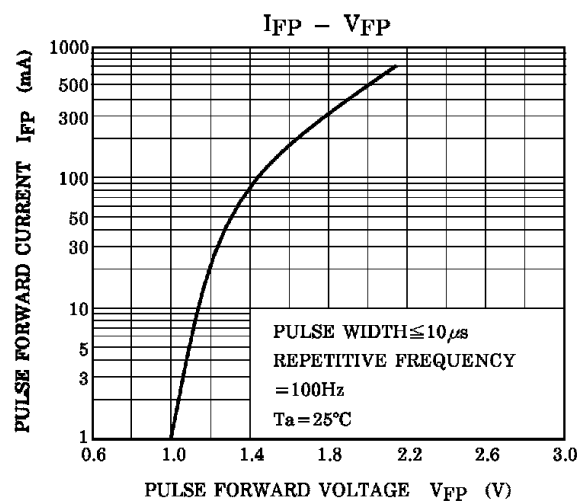
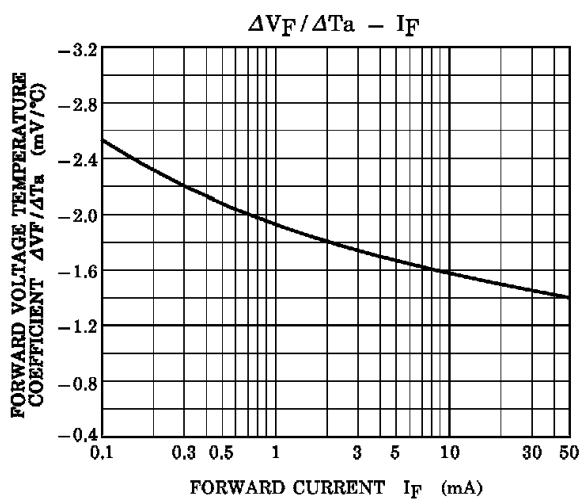
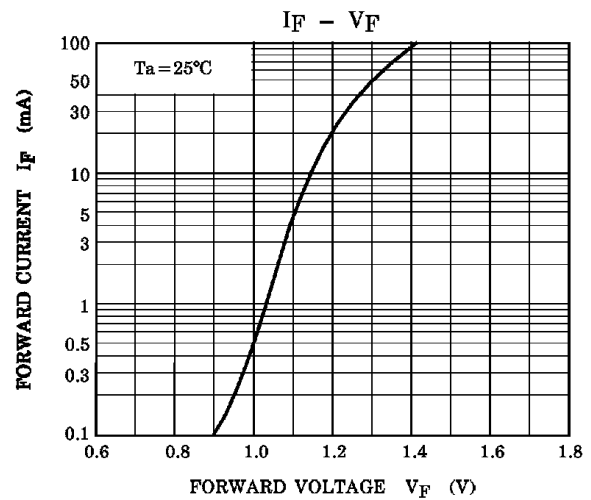
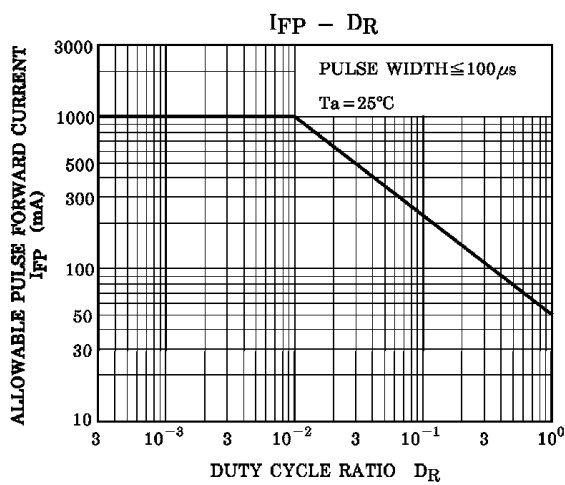
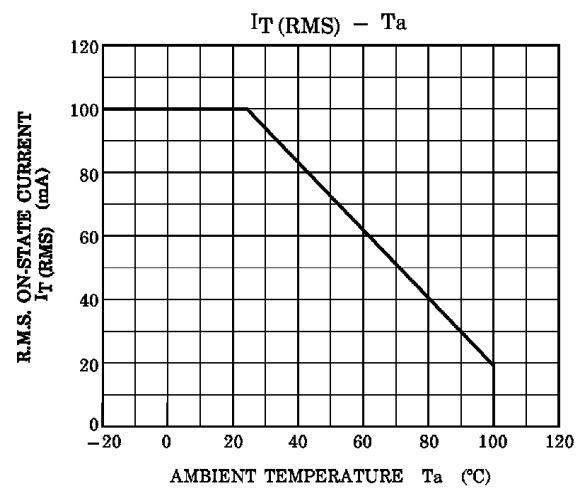
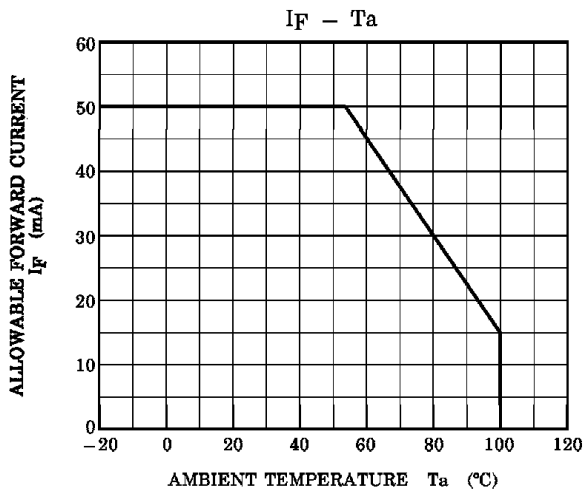
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
LED	Forward Voltage	V_F	$I_F = 10 \text{ mA}$	1.0	1.15	1.3	V
	Reverse Current	I_R	$V_R = 5 \text{ V}$	—	—	10	μA
	Capacitance	C_T	$V = 0, f = 1\text{MHz}$	—	30	—	pF
DETECTOR	Peak Off-State Current	I_{DRM}	$V_{\text{DRM}} = 600\text{V}$	—	10	1000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

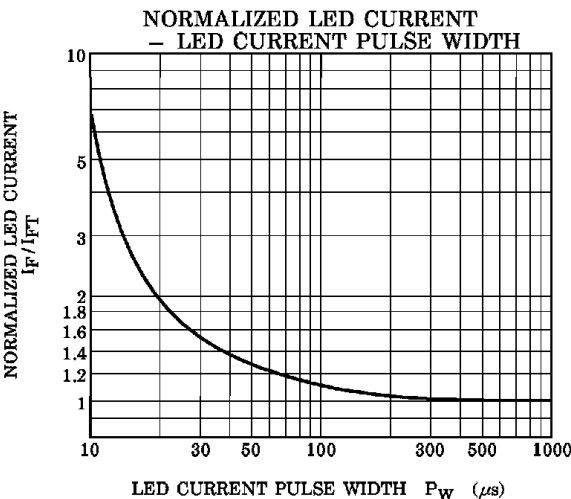
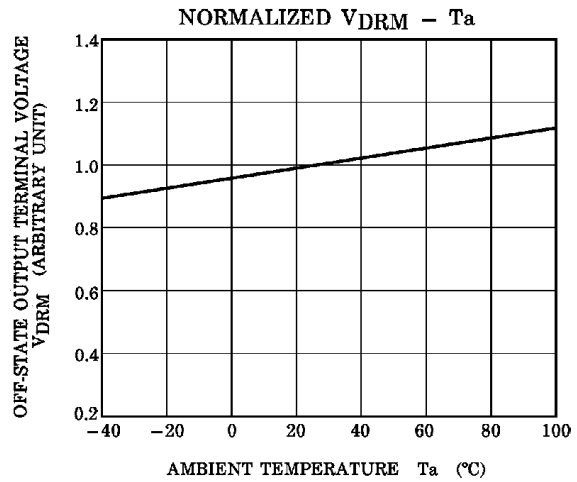
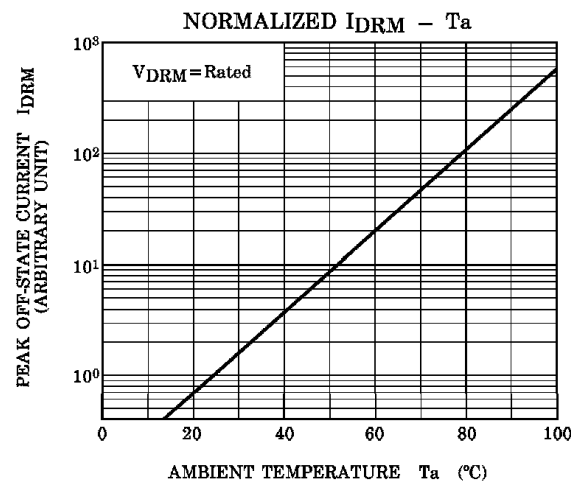
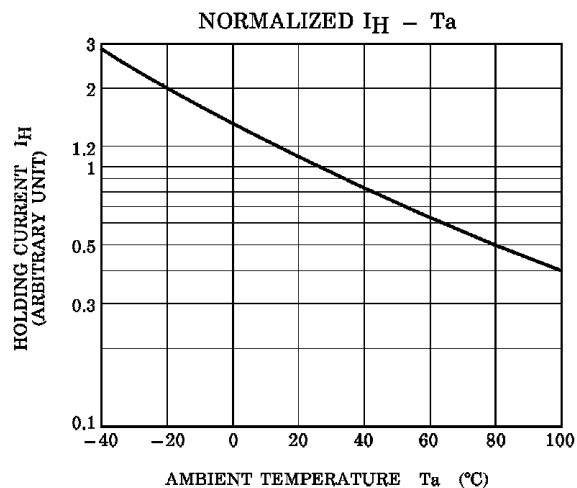
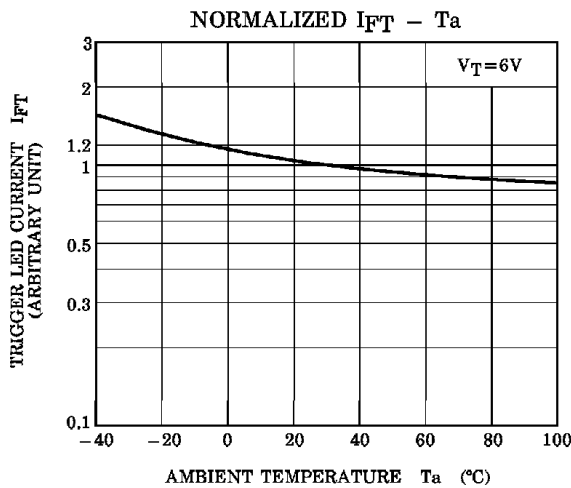
COUPLED ELECTRICAL CHARACTERISTICS(Ta=25°C)

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







RESTRICTIONS ON PRODUCT USE

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