TOSHIBA
Leading Innovation

GLYN
High-Tech Distribution

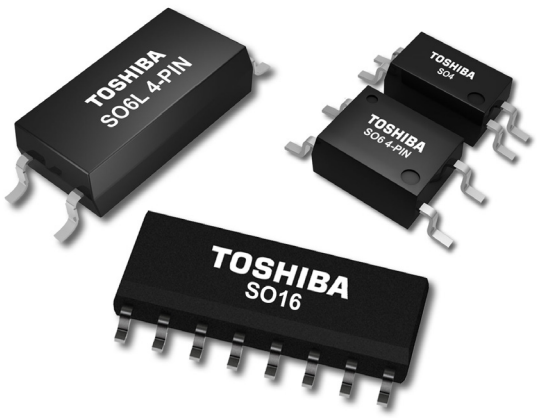
PHOTOCOUPLER

TRANSISTOR COUPLER

Cost Effective Isolation

Toshiba offers a wide variety of Photocouplers, that help reduce product size and power consumption, such as Photocouplers in ultra-small, thin packages and those that can be driven with low input currents as well as an operating temperature range of up to 125°C. Transistor-output Photocouplers are used for a wide range of applications such as a feedback circuit in a power supply and optoelectronic interfacing in industrial equipment.

Toshiba has decades of experience in the development and manufacturing of cutting-edge Photocouplers.



APPLICATIONS

- Factory automation
- Consumer equipment
- PLC
- Renewable energy
- Power supplies
- I/O Interfaces
- Lighting

FEATURES	ADVANTAGES
Extended temperature range from -55°C up to +125°C	Products are perfectly applicable in harsh environments
Low input current operation	Low power consumption
Small temperature coefficient of CTR	Stable operation over wide temperature range
Wide variety of packages for Transistor Couplers are available	Customers have the freedom of choice to choose best fitting product
High Quality mass production	Variety of safety approvals and certificates from third parties (e.g. VDE, UL, etc.)
Fast switching speed	Quick signal response

BENEFITS

Attractive cost effects

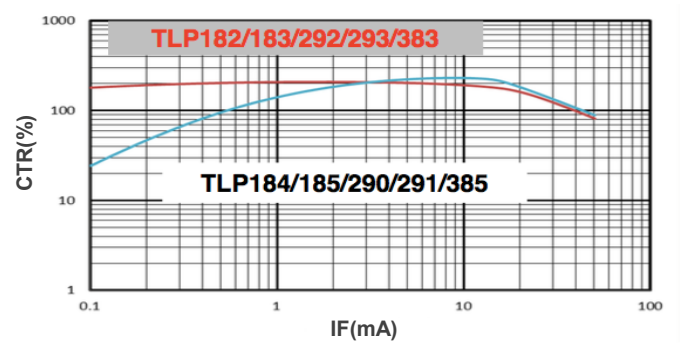
- Higher reliability of end products reduces cost of operation failures
- Ability to reduce BOM costs due to selection possibilities of products
- High optimisation potential for PCB costs

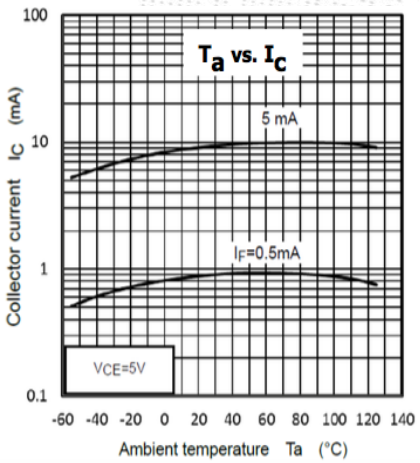
Smart performance increases

- Design gets easy and flexible
- Universal application possibilities due to validated quality standards

CONSTANT CTR AT LOW INPUT CURRENT AND HIGH TEMPERATURE STABILITY

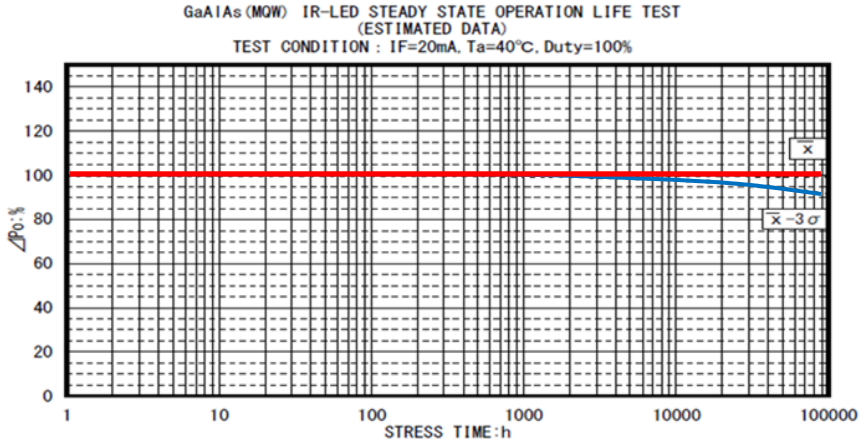
The new TLP182, TLP183, TLP292, TLP293 and TLP383 provide a highly constant CTR even at a low input current due to the use of a high-power InGaAs (Indium Gallium Arsenide) LED. This characteristic is even valid over a wide temperature range, simplifying functional design even in the low input current region.





ADVANTAGES OF LONG LIFETIME HIGH TEMPERATURE LEDs

Toshiba's new high temperature LEDs (InGaAs) show much lower output degradation over time than standard LEDs. In the past a slightly higher input current had to be considered to compensation the CTR degradation over time. With Toshiba's new high temperature LEDs (InGaAs) this is no longer required.

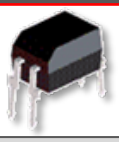
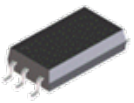


TLP38x TRANSISTOR COUPLERS IN ADVANCED SO6L PACKAGE

Toshiba's latest Transistor Couplers are available in an advanced wide-body SO6L package. With 8mm clearance and creepage distances and a guaranteed high insulation voltage of 5000Vrms they are ideal replacements for old fashioned DIP4 packages. TLP388 and TLP387 are the latest high V_{CEO} versions with Darlington Output.

TLP293-4 AND TLP292-4 4-CHANNEL TRANSISTOR COUPLERS

Toshiba have added low input current CTR ranks for it's 4-channel Transistor Couplers TLP292-4 and TLP293-4. These ranks are called LA and LGB (LA Rank=CTR 50-600%, LGB Rank=CTR 100-600% [@IF=0,5mA, VCE=5V]). With clearance and creepage distances of min. 5mm, a guaranteed high insulation voltage of 3750Vrms and an extended operation temperature range from -55 to +125°C they are the ideal devices in all industrial environments.

		Isolation Voltage	Package				
			SO4 Single	SO16 Quad	SO6 Single	DIP4 Single	SO6L Single
Package							
DC Input		2500 Vrms		TLP291-4			
		3750 Vrms	TLP291(SE		TLP185(SE		
		5000 Vrms				TLP785	TLP385
	Low If	3750 Vrms	TLP293 H	TLP293-4 H	TLP183 H		
		5000 Vrms					TLP383 H
	High V_{CEO}	3750 Vrms			TLP188		TLP388 H
AC Input		2500 Vrms		TLP290-4			
		3750 Vrms	TLP290(SE		TLP184(SE		
	Low If	3750 Vrms	TLP292 H	TLP292-4 H	TLP182 H		
Darlington	V_{CEO}	3750 Vrms			TLP187		TLP387
On-Chip RBE	Low If High Speed	3750 Vrms			TLP2301 H		

H Photocouplers with a maximum operating temperature of 125°C