

Product data sheet

LIREGUS

Rotary dimmer



Reference number

ISR-002-01 /DEP-01

Universal rotary dimmer for standart incandent lamps light level control, without frame

incremental control without end position
with satellite input

Intended use

- Switching and dimming of lighting (10-100%);
- Operation with suitable cover;
- Installation in 60mm flush box, according to DIN 49073;

Product characteristics

- Device can be operated without neutral conductor;
- Switch-on via bulb-preserving soft start;
- Switch-on with last brightness;
- Connection of satellite units possible;
- Electronic over-temperature protection;
- Power extension possible by means of power boosters.

Centre plates colour, EAN code:

ISR-002-01.E/B - White, 4770025869550, 10pc. package 4770025870044
 ISR-002-01.E/S - Sandy, 4770025870532, 10pc. package 4770025871003
 ISR-002-01.E/R - Brown, 4770025871379, 10pc. package 4770025872703
 ISR-002-01.E/Mt - Metallic, 4770025871560, 10pc. package 4770025872895
 ISR-002-01.E/J - Black, 4770025871751, 10pc. package 4770025873083
 ISR-002-01.E/Ch - Champagne, 4770025875131, 10pc. package 4770025875148
 ISR-002-01.A/B - White, 4770025863084, 10pc. package 4770025873908
 ISR-002-01.A/S - Sandy, 4770025863107, 10pc. package 4770025873922
 ISR-002-01.Gama - White, 4770025864593, 10pc. package 4770025867976

Technical specifications:

Rated voltage, frequency

AC 230 V , 50 Hz, +-10%

Stand-by power

approx. 0.35 W

Power loss

approx. 4 W

Ambient temperature

-5 ... +45 °C

Control device

Triac BTA06/400GP

Connected load at 25 °C:

Incandescent lamps

40 ... 400 W

HV halogen lamps: 230V and 12V (toroidal transformer)

40 ... 400 W

IP protection

IP20

Dimensions

50 x 51 x 51mm

Weight

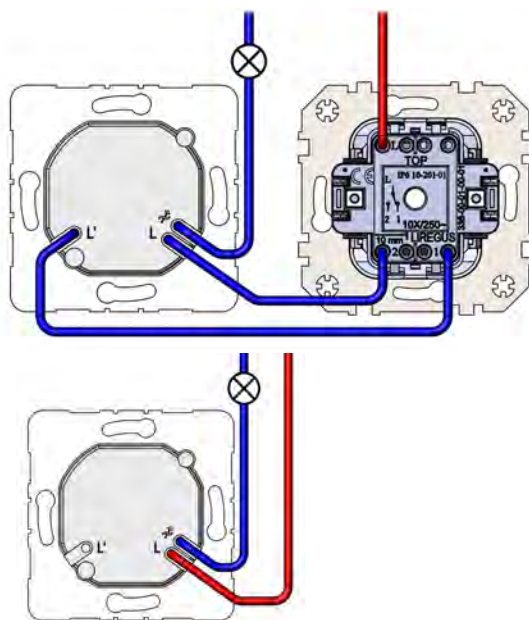
0,130kg

Surge voltage

2KV (PN-EN 60669-1)

Applicable standards:

PN-EN 60669-1, PM-EN 60669-2-1



Паспорт продукта

LIREGUS

Выключатель-светорегулятор



Тип:

ISR-002-01 /DEP-01

Универсальный поворотный диммер для ламп высокого напряжения, без рамки

инкрементальное управление без конечного положения со спутниковым входом

Использование по назначению

- Переключение и затемнение освещения (10-100%);
- Работа с подходящей крышкой;
- Установка в 60мм монтаж. коробку, в соответствии с DIN 49073;

Характеристика продукта

- Устройство может работать без нейтрального проводника;
- Включение через мягкий сохраняющий лампу старт;
- Включить с последней яркостью;
- Возможно подключение спутниковых блоков;
- Электронная защита от перегрева;
- Расширение мощности возможно с помощью усилителей мощности.

Механизм с накладкой, EAN:

ISR-002-01.E/B - Белый, 4770025869550
ISR-002-01.E/S - Бежевый, 4770025870532
ISR-002-01.E/R - Коричневый, 4770025871379
ISR-002-01.E/Mt - Серебро, 4770025871560
ISR-002-01.E/J - Антрацит, 4770025871751
ISR-002-01.E/Ch - Шампань, 4770025875131
ISR-002-01.A/B - Белый, 4770025863084
ISR-002-01.A/S - Бежевый, 4770025863107
ISR-002-01.Gama - Белый, 4770025864593

Технические характеристики:

Номинальное напряжение, частота

AC 230 В / 50/60 Hz

Резервное питание

approx. 0.35 Ватт

Температура окружающей среды

-5 ... +45 °C

Подключенная нагрузка при 25 °C

Лампы накаливания

40 ... 400 Ватт

HV галогенные лампы

40 ... 400 Ватт

Устройства управления

симистор Triac BTA06/400GP

Защита IP

IP20

Габаритные размеры

50 x 51 x 51 мм

Масса

0,130 кг

Перенапряжение 2 кВ (PN-EN 60669-1)

Применимые стандарты:

PN-EN 60669-1, PM-EN 60669-2-1

Внимание:

Не допускайте короткого замыкания.

Храните в недоступном для детей месте.

Берегите от дождя, повышенной влажности, открытого огня и повышенных температур.

Срок службы конструктивных частей изделия не менее 5 лет. Гарантия 1 год.

Соответствует требованиям TP TC 004/201, TP TC 020/2011

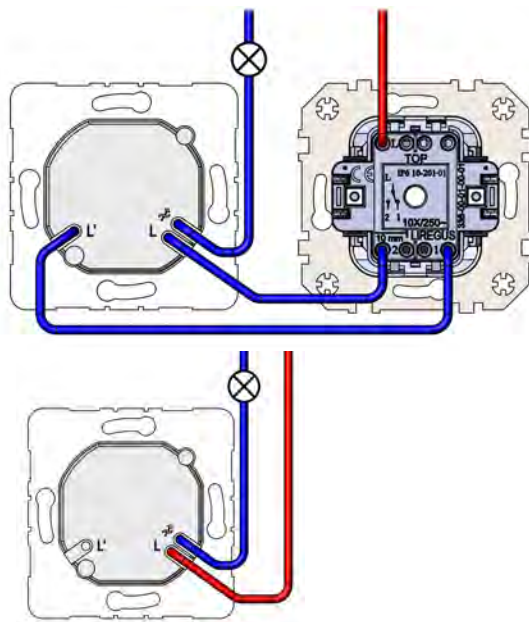
Изготовитель: UAB "LIREGUS"

Литва, Skroblu g. 19, Vilnius, LT-0314.

Уполномоченная организация (Импортер):

ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ "КАНЛЮКС-ЭЛЕКТРОМОНТАЖ"

Место нахождения и адрес места осуществления деятельности: 142100, Россия, область Московская, город Подольск, улица Комсомольская, дом 1, строение 49, помещение 1, часть комнаты 150



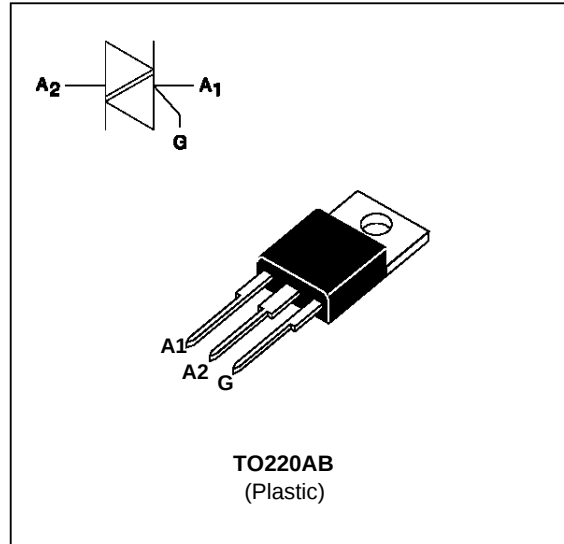
FEATURES

- LOW $I_H = 13\text{mA max}$
- HIGH SURGE CURRENT : $I_{TSM} = 100\text{A}$
- I_{GT} SPECIFIED IN FOUR QUADRANTS
- INSULATING VOLTAGE = $2500\text{V}_{(RMS)}$
(UL RECOGNIZED : E81734)

DESCRIPTION

The BTA06 GP's use high performance, glass passivated chips.

The insulated TO220AB package, the high surge current and low holding current make this family well adapted to LIGHT DIMMER applications.



ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
$I_T(RMS)$	RMS on-state current (360° conduction angle)	$T_c = 105^\circ\text{C}$	6	A
I_{TSM}	Non repetitive surge peak on-state current (T_j initial = 25°C)	$t_p = 8.3\text{ ms}$	105	A
		$t_p = 10\text{ ms}$	100	
I^2t	I^2t value	$t_p = 10\text{ ms}$	50	A^2s
di/dt	Critical rate of rise of on-state current Gate supply : $I_G = 500\text{mA}$ $di_G/dt = 1\text{A}/\mu\text{s}$	Repetitive $F = 50\text{ Hz}$	10	$\text{A}/\mu\text{s}$
		Non Repetitive	50	
T_{stg} T_j	Storage and operating junction temperature range		- 40 to + 150 - 40 to + 125	$^\circ\text{C}$ $^\circ\text{C}$
T_l	Maximum lead temperature for soldering during 10 s at 4.5 mm from case		260	$^\circ\text{C}$

Symbol	Parameter	BTA06-		Unit
		400 GP	600 GP	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage $T_j = 125^\circ\text{C}$	400	600	V

BTA06 GP

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
Rth (j-a)	Junction to ambient	60	°C/W
Rth (j-c) DC	Junction to case for DC	4	°C/W
Rth (j-c) AC	Junction to case for 360° conduction angle (F= 50 Hz)	3	°C/W

GATE CHARACTERISTICS (maximum values)

P_G (AV) = 1W P_{GM} = 10W (tp = 20 μ s) I_{GM} = 4A (tp = 20 μ s) V_{GM} = 16V (tp = 20 μ s).

ELECTRICAL CHARACTERISTICS

Symbol	Test Conditions		Quadrant		Suffix	Unit
					GP	
I_{GT}	$V_D=12V$ (DC) $R_L=33\Omega$	$T_j=25^\circ C$	I-II-III	MAX	50	mA
			IV	MAX	75	
V_{GT}	$V_D=12V$ (DC) $R_L=33\Omega$	$T_j=25^\circ C$	I-II-III-IV	MAX	1.5	V
V_{GD}	$V_D=V_{DRM}$ $R_L=3.3k\Omega$	$T_j=110^\circ C$	I-II-III-IV	MIN	0.2	V
tgt	$V_D=V_{DRM}$ $I_G = 500mA$ $dI_G/dt = 3A/\mu s$	$T_j=25^\circ C$	I-II-III-IV	TYP	2	μs
I_L	$I_G=1.2 I_{GT}$	$T_j=25^\circ C$	I-III-IV	TYP	20	mA
			II		40	
I_H *	$I_T= 100mA$ gate open	$T_j=25^\circ C$		MAX	13	mA
V_{TM} *	$I_{TM}= 8.5A$ tp= 380 μs	$T_j=25^\circ C$		MAX	1.4	V
I_{DRM} I_{RRM}	V_{DRM} Rated V_{RRM} Rated	$T_j=25^\circ C$		MAX	0.01	mA
		$T_j=110^\circ C$		MAX	0.5	
dV/dt *	Linear slope up to $V_D=67\%V_{DRM}$ gate open	$T_j=110^\circ C$		MIN	30	V/ μs
				TYP	100	
(dV/dt)c *	(dI/dt)c= 1.8A/ms	$T_j=110^\circ C$		MIN	1	V/ μs
				TYP	10	

* For either polarity of electrode A₂ voltage with reference to electrode A₁.

Fig.1 : Maximum RMS power dissipation versus RMS on-state current ($F=50\text{Hz}$).
(curves are cut off by $(di/dt)_c$ limitation)

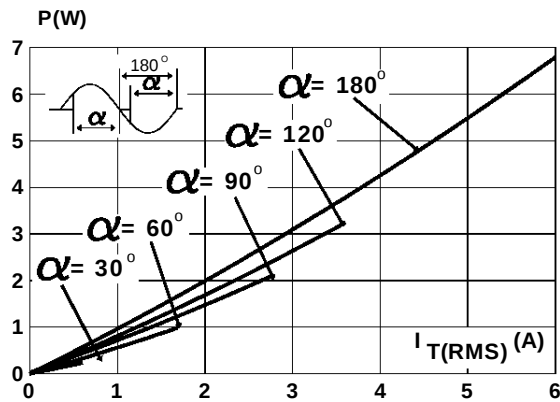


Fig.3 : RMS on-state current versus case temperature.

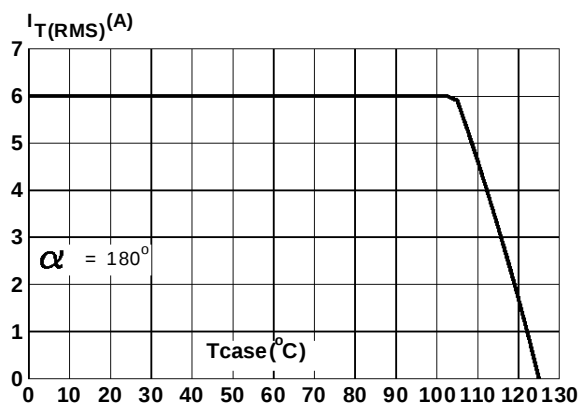


Fig.5 : Relative variation of gate trigger current and holding current versus junction temperature.

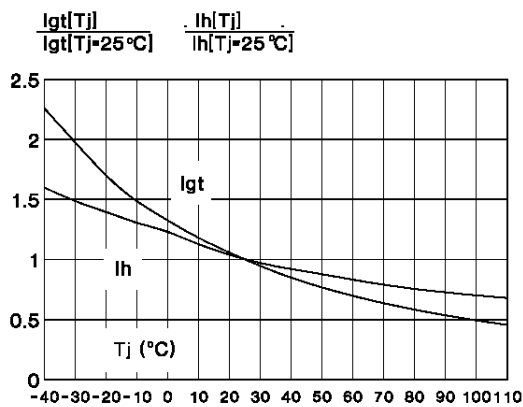


Fig.2 : Correlation between maximum RMS power dissipation and maximum allowable temperatures (T_{amb} and T_{case}) for different thermal resistances heatsink + contact.

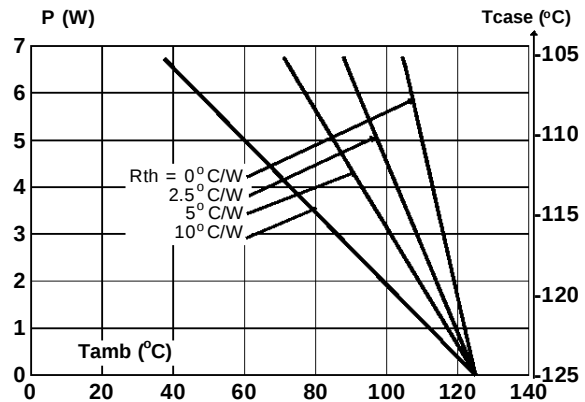


Fig.4 : Relative variation of thermal impedance versus pulse duration.

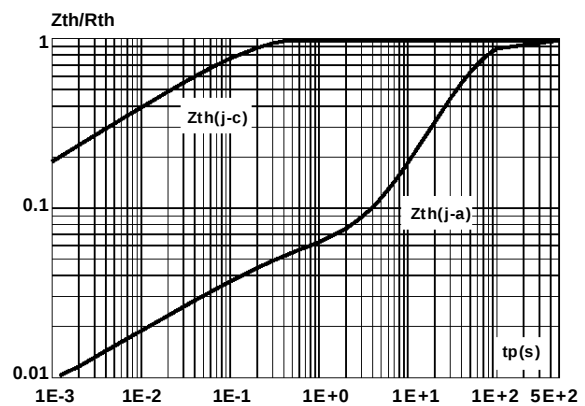
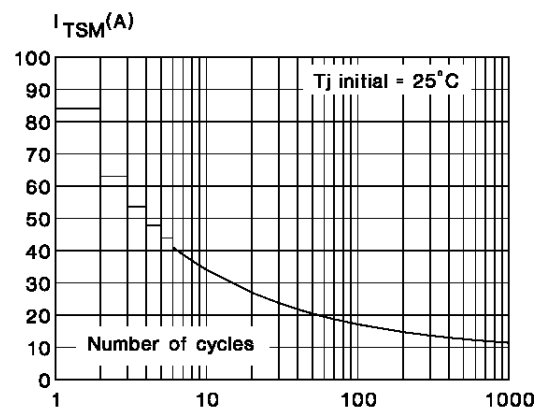


Fig.6 : Non Repetitive surge peak on-state current versus number of cycles.



BTA06 GP

Fig.7 : Non repetitive surge peak on-state current for a sinusoidal pulse with width : $t \leq 10\text{ms}$, and corresponding value of I^2t .

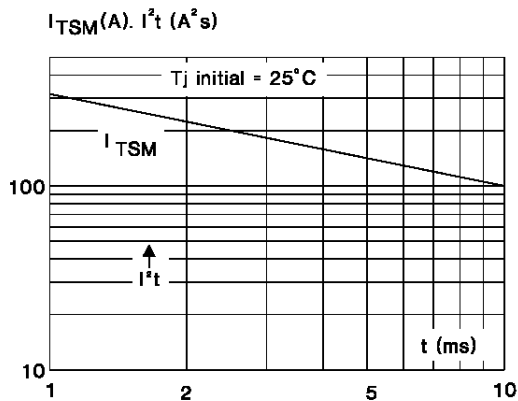
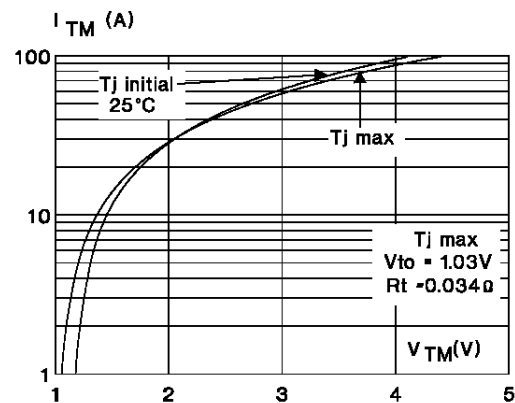
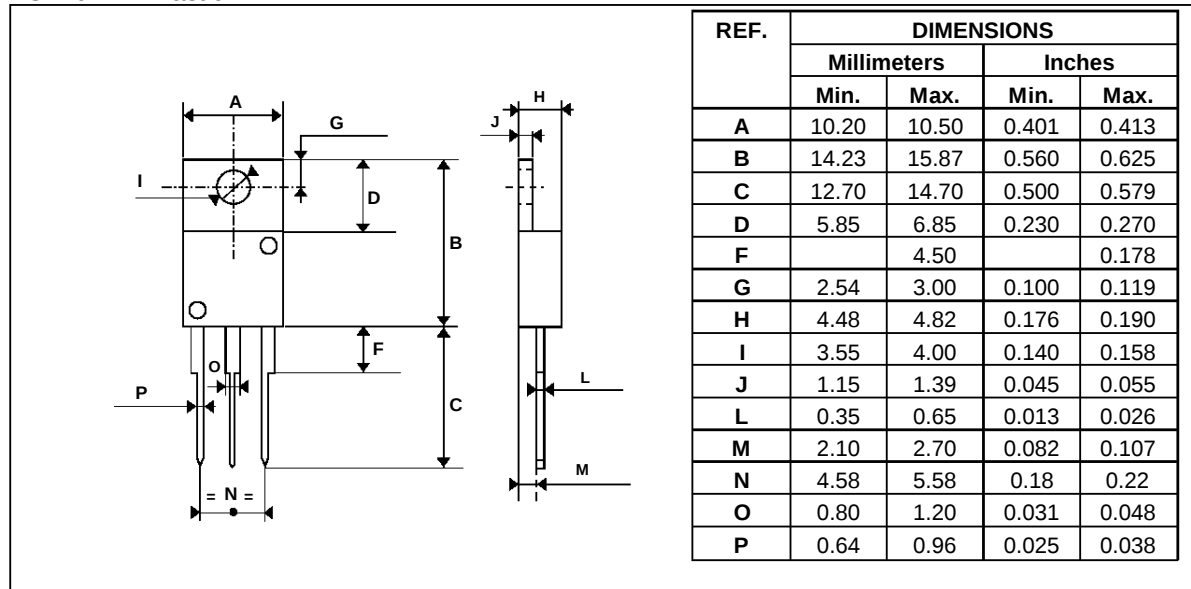


Fig.8 : On-state characteristics (maximum values).



PACKAGE MECHANICAL DATA

TO220AB Plastic



Cooling method : C
Marking : type number
Weight : 2.3 g

Recommended torque value : 0.8 m.N.
Maximum torque value : 1 m.N.

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