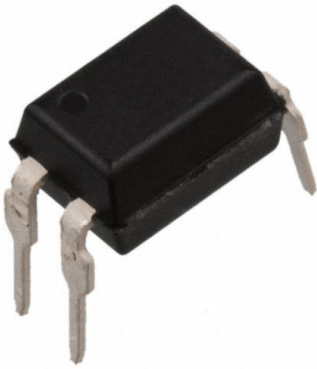


TIL191 Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	TIL191-DG
Manufacturer	Isocom Components 2004 LTD
Manufacturer Product Number	TIL191
Description	4PIN TRANSISTOR OUTPUT, SINGLE O
Detailed Description	Optoisolator Transistor Output 7.5Vpk 1 Channel 4-DIP

This model TIL191 is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

TIL191

Series:

TIL191

Number of Channels:

1

Current Transfer Ratio (Min):

20% @ 5mA

Turn On / Turn Off Time (Typ):

-

Input Type:

DC

Voltage - Output (Max):

35V

Voltage - Forward (Vf) (Typ):

1.2V

Vce Saturation (Max):

400mV

Mounting Type:

Through Hole

Supplier Device Package:

4-DIP

Manufacturer:

Isocom Components 2004 LTD

Product Status:

Active

Voltage - Isolation:

7.5Vpk

Current Transfer Ratio (Max):

-

Rise / Fall Time (Typ):

6 μ s, 6 μ s

Output Type:

Transistor

Current - Output / Channel:

-

Current - DC Forward (If) (Max):

50 mA

Operating Temperature:

-55°C ~ 100°C

Package / Case:

4-DIP (0.300", 7.62mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.49.8000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



ISOCOM

COMPONENTS

TIL191, TIL192, TIL193
TIL191A, TIL192A, TIL193A
TIL191B, TIL192B, TIL193B

**HIGH DENSITY MOUNTING
 PHOTOTRANSISTOR
 OPTICALLY COUPLED ISOLATORS**



APPROVALS

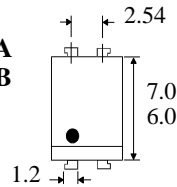
- UL recognised, file no. E91231

- High Isolation Voltage (5.3kV_{RMS}, 7.5kV_{PK})
- All electrical parameters 100% tested
- Custom electrical selections available

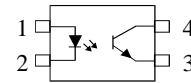
APPLICATIONS

- Computer terminals
- Industrial systems controllers
- Measuring instruments
- Signal transmission between systems of different potentials and impedances

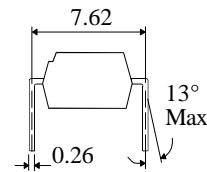
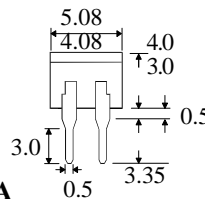
**TIL191
 TIL191A
 TIL191B**



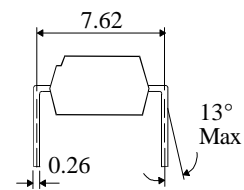
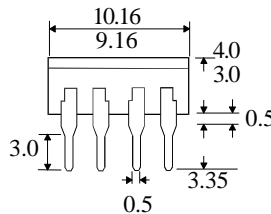
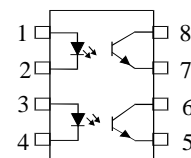
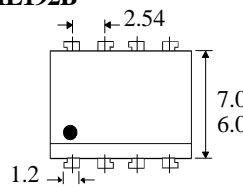
Dimensions in mm



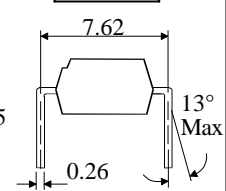
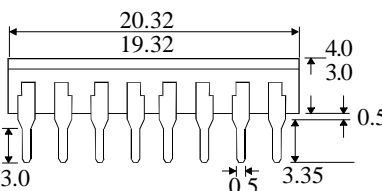
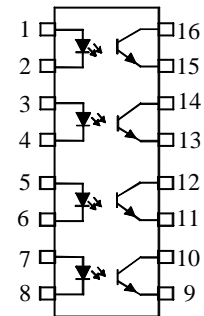
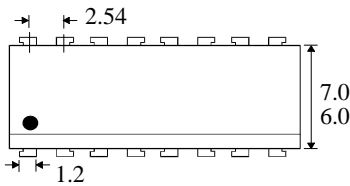
**TIL192
 TIL192A
 TIL192B**



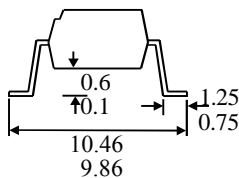
**TIL193
 TIL193A
 TIL193B**



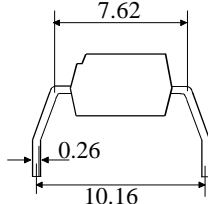
**TIL193
 TIL193A
 TIL193B**



**OPTION SM
 SURFACE MOUNT**



OPTION G



ISOCOMCOMPONENTS2004LTD

Unit 25B, Park View Road West,
 Park View Industrial Estate, Brenda Road
 Hartlepool, Cleveland, TS25 1UD
 Tel: (01429) 863609 Fax: (01429) 863581

ABSOLUTE MAXIMUM RATINGS
(25°C unless otherwise specified)

Storage Temperature _____ -55°C to + 125°C
 Operating Temperature _____ -55°C to + 100°C
 Lead Soldering Temperature
 (1/16 inch (1.6mm) from case for 10 secs) 260°C

INPUT DIODE

Forward Current _____ 50mA
 Reverse Voltage _____ 5V
 Power Dissipation _____ 70mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO} _____ 35V
 Emitter-collector Voltage BV_{ECO} _____ 6V
 Power Dissipation _____ 150mW

POWER DISSIPATION

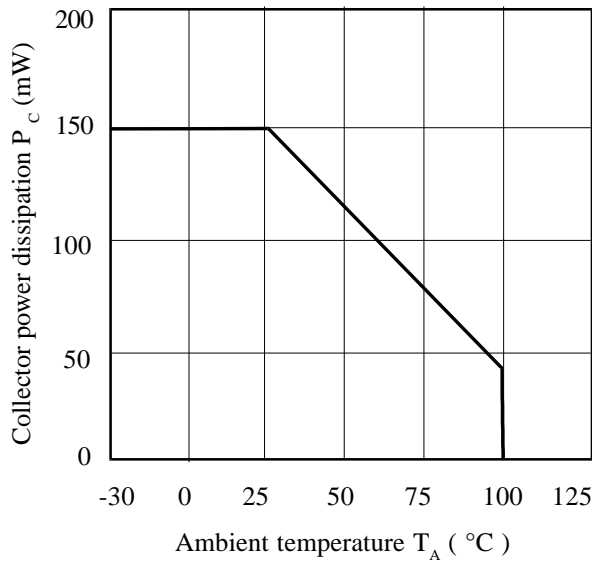
Total Power Dissipation _____ 200mW
 (derate linearly 2.67mW/°C above 25°C)

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

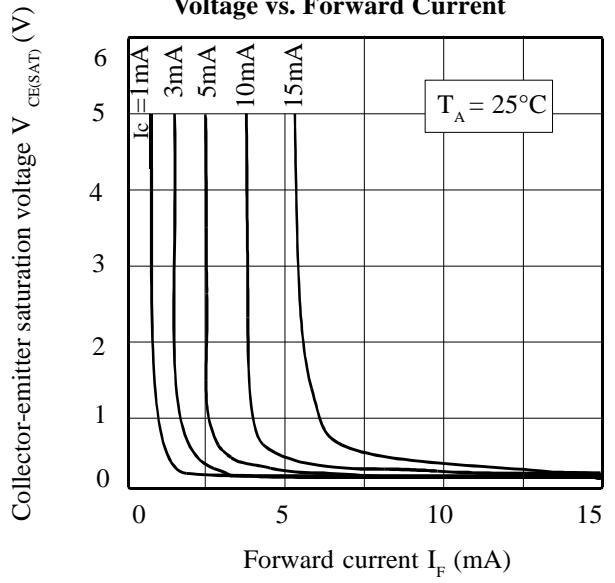
PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.4	V	$I_F = 20\text{mA}$
	Reverse Voltage (V_R)	5			V	$I_R = 10\mu\text{A}$
	Reverse Current (I_R)			10	μA	$V_R = 5\text{V}$
Output	Collector-emitter Breakdown (BV_{CEO}) (Note 2)	35			V	$I_C = 0.5\text{mA}$
	Emitter-collector Breakdown (BV_{ECO})	6			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current (I_{CEO})			100	nA	$V_{CE} = 24\text{V}$
Coupled	Current Transfer Ratio (CTR) (Note 2) TIL191, TIL192, TIL193	20			%	$5\text{mA } I_F, 5\text{V } V_{CE}$
	TIL191A, TIL192A, TIL193A	50			%	
	TIL191B, TIL192B, TIL193B	100			%	
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$			0.4	V	$5\text{mA } I_F, 1\text{mA } I_C$
	Input to Output Isolation Voltage V_{ISO}	5300 7500			V_{RMS} V_{PK}	See note 1 See note 1
	Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)
	Output Rise Time tr		6		μs	$V_{CC} = 5\text{V}$,
Output Fall Time tf		6		μs	$I_C = 2\text{mA}, R_L = 100\Omega$	

Note 2 Measured with input leads shorted together and output leads shorted together.
 Special Selections are available on request. Please consult the factory.

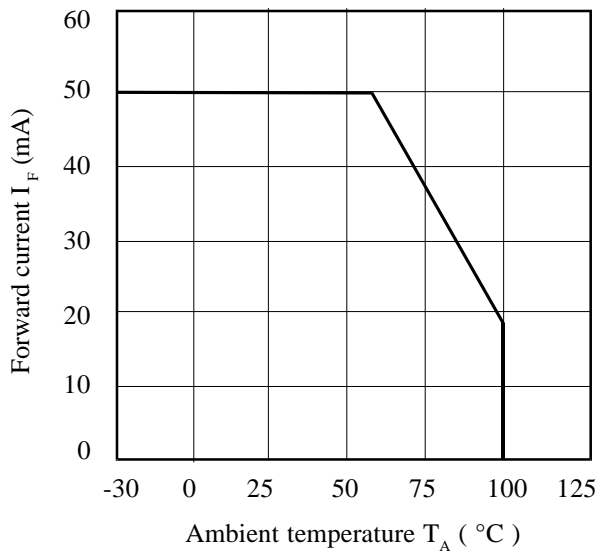
Collector Power Dissipation vs. Ambient Temperature



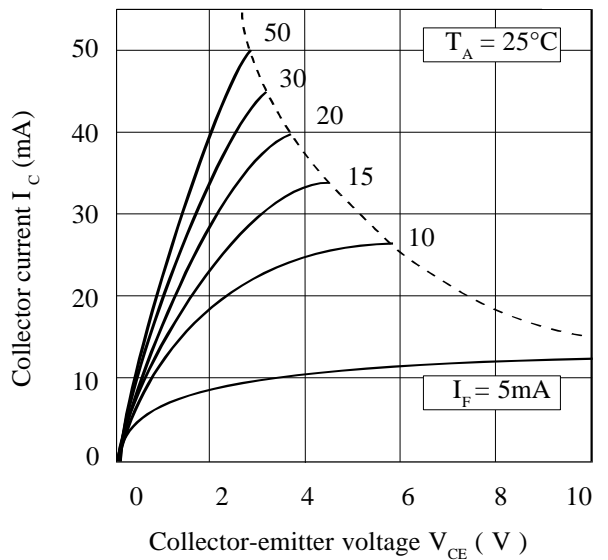
Collector-emitter Saturation Voltage vs. Forward Current



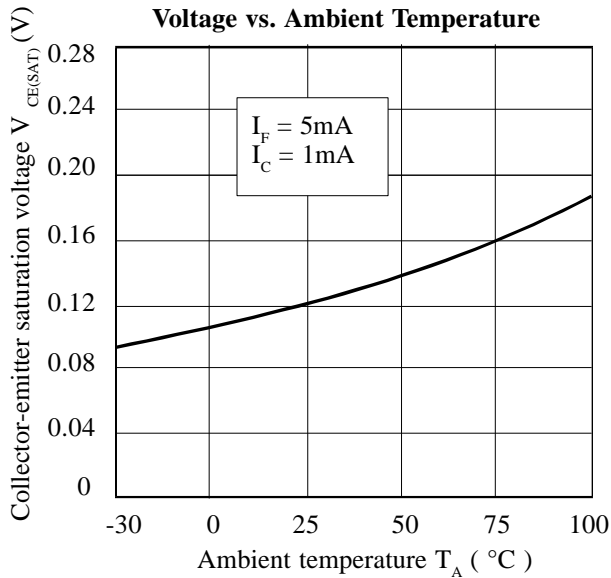
Forward Current vs. Ambient Temperature



Collector Current vs. Collector-emitter Voltage



Collector-emitter Saturation Voltage vs. Ambient Temperature



Current Transfer Ratio vs. Forward Current

