



DC Input
Optocoupler

DESCRIPTION

The SDD800 is composed of two distinct optically isolated optocouplers in one compact 8 PDIP package. Each optocoupler consists of a Photo Darlington transistor optically coupled to an AlGaAs LED. Optical coupling between the input LED and output Photo Darlington allows for high isolation levels while maintaining low-level DC signal control capability. The SDD800 provides an optically isolated method of controlling many interface applications such as telecommunications, industrial control and instrumentation circuitry.

FEATURES

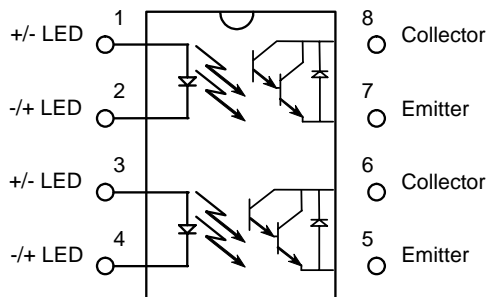
- Two isolated optocouplers in one compact 8 pin DIP package
- High Load Voltage ($V_{ceo} = 300V$ MIN)
- High current transfer ratio (600-9000%)
- High input-to-output isolation package (5,000 Vrms)

OPTIONS/SUFFIXES*

- -H .04" (10.16mm) lead spacing (VDE0884)
- -S Surface Mount Option
- -TR Tape and Reel Option

NOTE: Suffixes listed above are not included in marking on device for part number identification.

SCHEMATIC DIAGRAM



APPLICATIONS

- Home Appliances
- Office Automation Equipment
- Telecom / Datacom
- Power Supplies
- Fax / Modems

ABSOLUTE MAXIMUM RATINGS*

PARAMETER	UNIT	MIN	TYP	MAX
Storage Temperature	°C	-55		125
Operating Temperature	°C	-40		100
Continuous Forward Current	mA			50
Peak Forward Current	A			1
Reverse Voltage	V			6
Output Power Dissipation	mW			200

*The values indicated are absolute stress ratings. Functional operation of the device is not implied at these or any conditions in excess of those defined in electrical characteristics section of this document. Exposure to Absolute Ratings may cause permanent damage to the device and may adversely affect reliability.

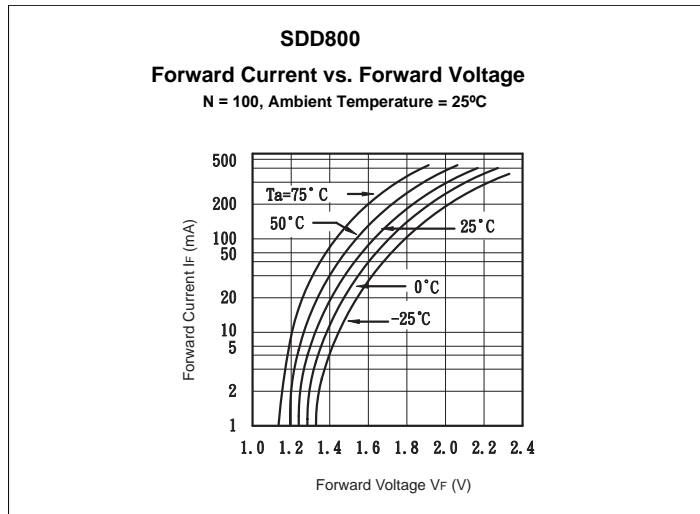
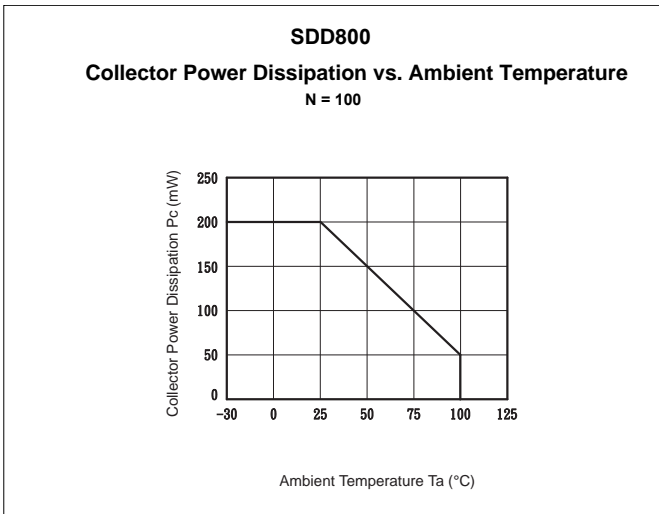
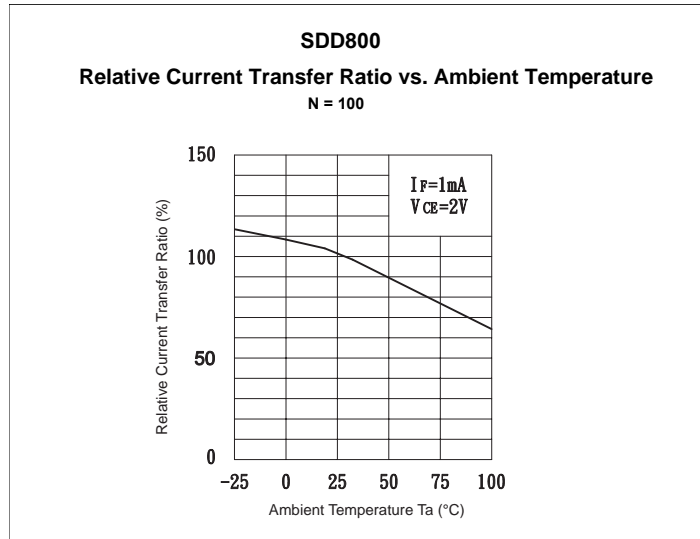
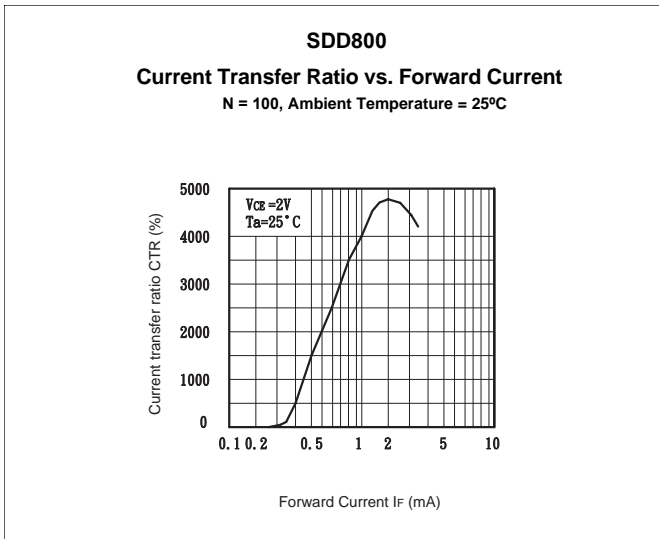
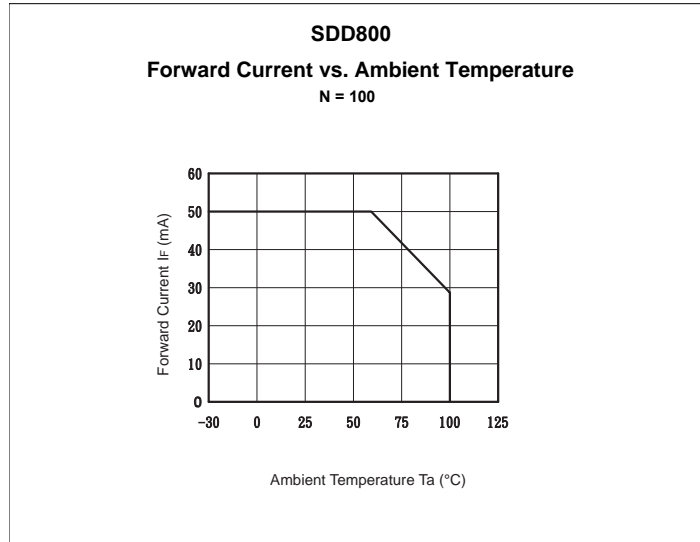
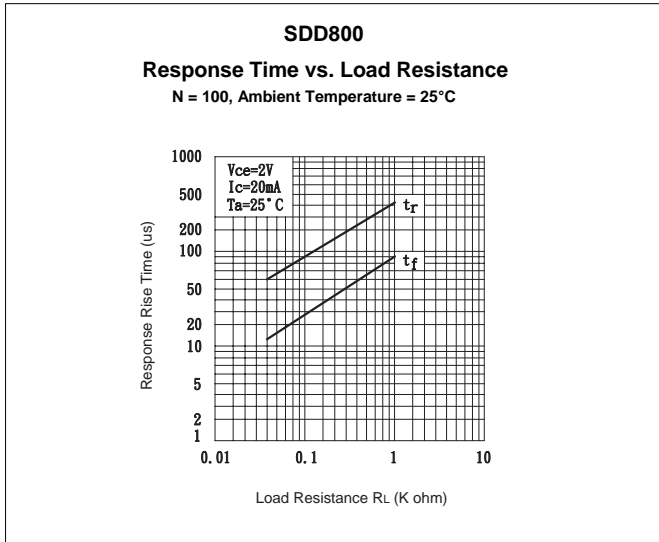
APPROVALS

- UL / C-UL Approved, File # E201932
- VDE Approved, License # 40011227

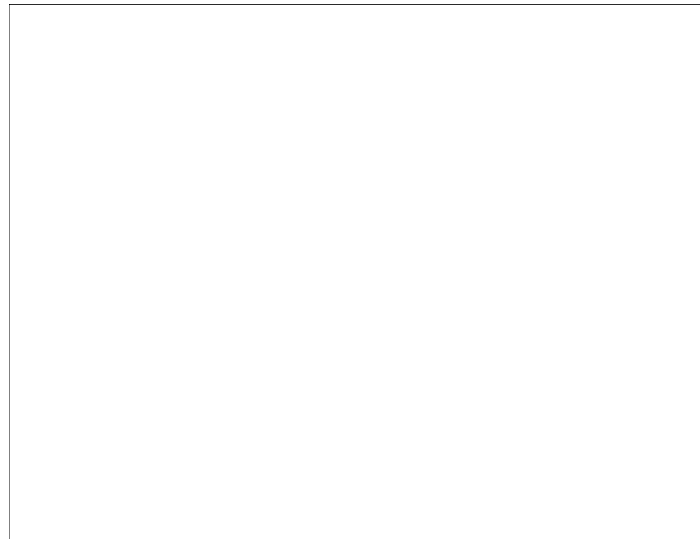
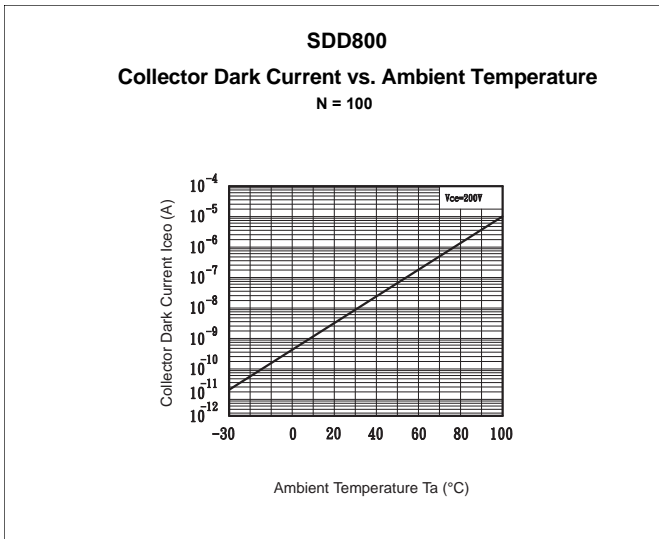
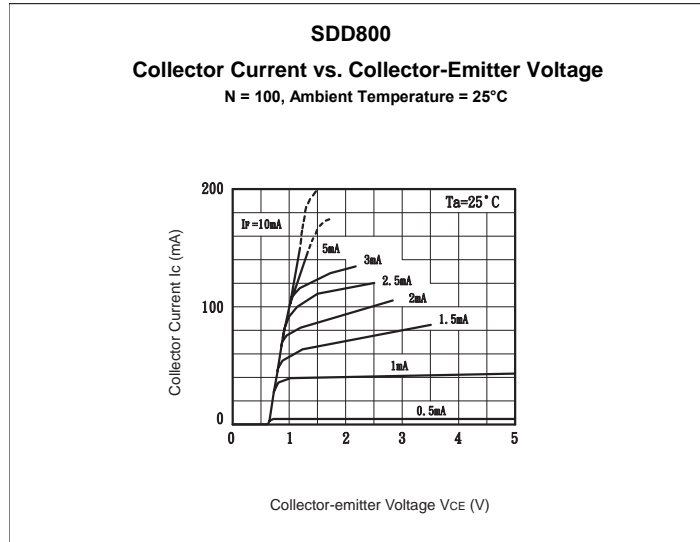
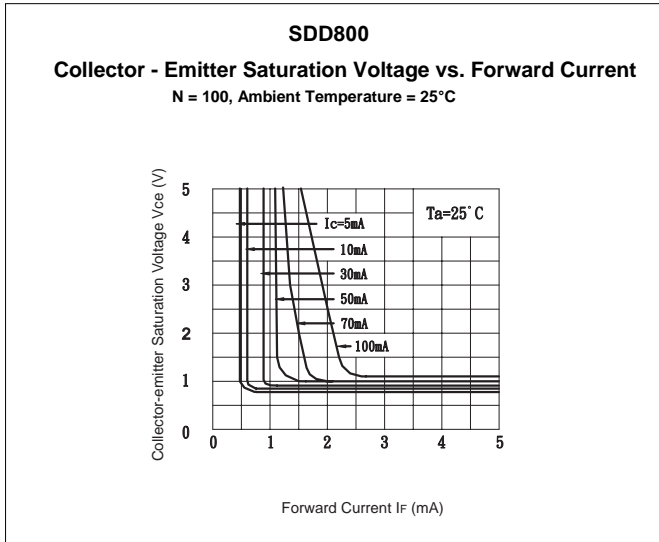
ELECTRICAL CHARACTERISTICS - 25°C

PARAMETER	UNIT	MIN	TYP	MAX	TEST CONDITIONS
INPUT SPECIFICATIONS					
LED Forward Voltage	V		1.2	1.4	If = 20mA
Peak Forward Voltage	V			3.5	Ifm = 0.5A
Reverse Current	μ A			10	Vr = 4V
Terminal Capacitance	p F		30		V = 0, f = 1kHz
OUTPUT SPECIFICATIONS					
Collector-Emitter Breakdown Voltage	V	300			Ic = 10uA
Emitter-Collector Voltage	V	0.1			Ie = 10uA
Dark Current	μ A			1	Vce = 200V, If = 0
Floating Capacitance	p F		0.6	1	Vce = 0V, f = 1.0MHz
Saturation Voltage (Collector - Emitter)	V			1.5	If = 20mA, Ic = 5mA
Current Transfer Ratio	%	600		9000	If = 1mA, Vce = 2V
Rise Time	μ s		60		Ic = 20mA, Vce = 2V, RL = 100 ohms
Fall Time	μ s		50		Ic = 20mA, Vce = 2V, RL = 100 ohms
COUPLED SPECIFICATIONS					
Isolation Voltage	V	5000			T = 1 minute
Isolation Resistance	G Ω	50			DC 500V
Cut off Frequency	k H z		7		Ic = 2mA, Vcc = 5V, RL = 100 ohms

PERFORMANCE DATA

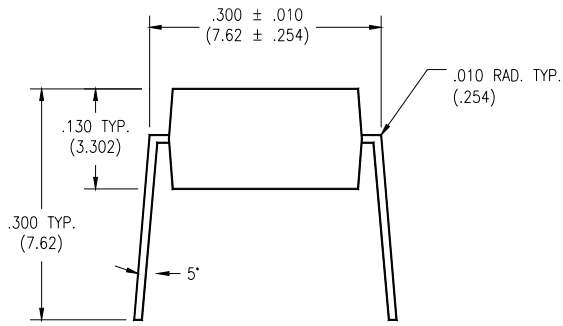


PERFORMANCE DATA



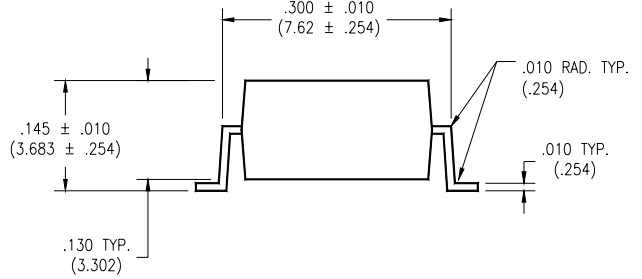
MECHANICAL DIMENSIONS

8 PIN DUAL IN-LINE PACKAGE

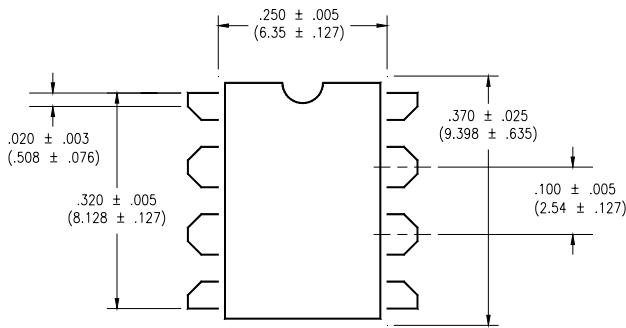


END VIEW

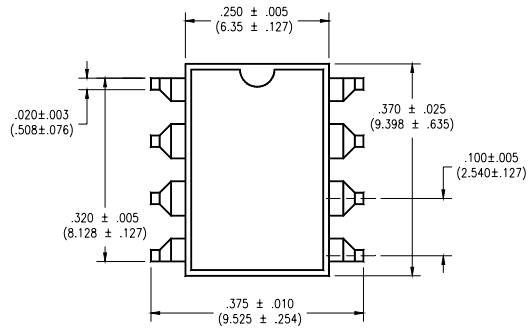
8 PIN SURFACE MOUNT DEVICE



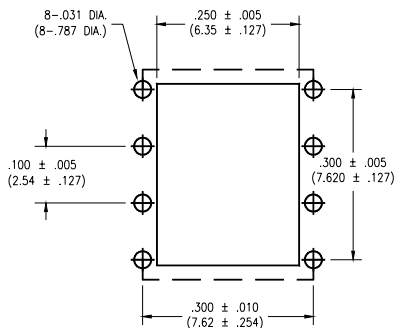
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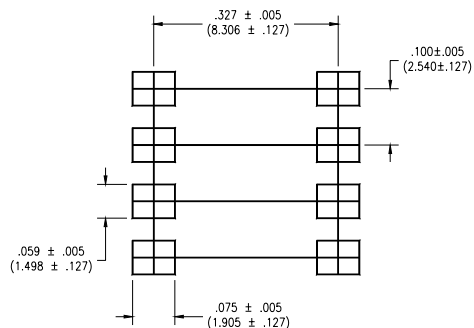
TOP VIEW



TOP VIEW



**BOTTOM VIEW/
BOARD PATTERN**



**BOTTOM VIEW/
BOARD PATTERN**

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