



DESCRIPTION

The SLC800 is a highly advanced linear optocoupler device. The product takes advantage of highly matched transistors used for both a Servo Feedback Loop and a Forward Output Loop. The closely matched transistors provide a high degree of linearity across a wide range of input signal variation. These features make the SLC800 an ideal product for transformer replacement in many medical, industrial and power supply isolation circuits. Its small size makes the SLC800 quite attractive for telecom applications in which board space is limited.

FEATURES

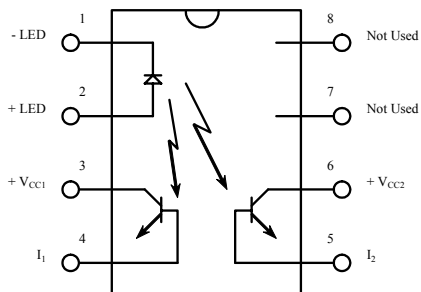
- High input-to-output isolation package (1500Vrms)
- Low input power consumption
- High stability
- Very high servo linearity across temperature

OPTIONS/SUFFIXES*

- -H High Input / Output isolation
- -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

- Power supply feedback
- Transformer replacement
- Audio signal interface
- Digital telephone isolation

ABSOLUTE MAXIMUM RATINGS*

PARAMETER	UNIT	MIN	TYP	MAX
Storage Temperature	°C	-55		125
Operating Temperature	°C	-40		85
Continuous Input Current	mA			40
Transient Input Current	mA			400
Reverse Input Control Voltage	V	6		
Output Power Dissipation	mW			500

*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.

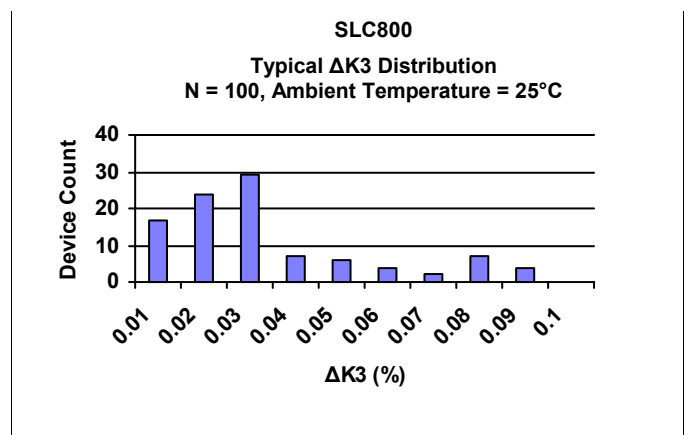
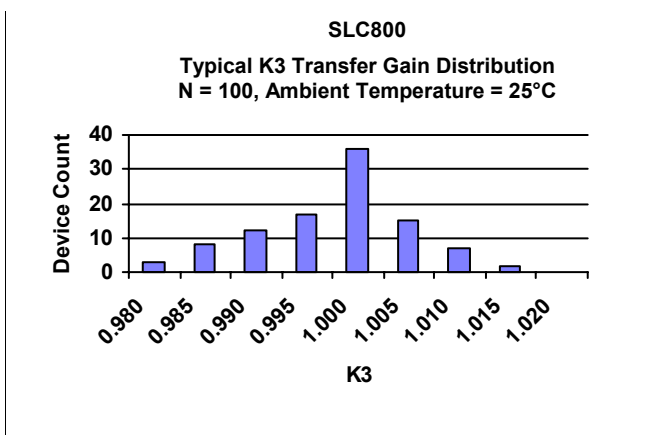
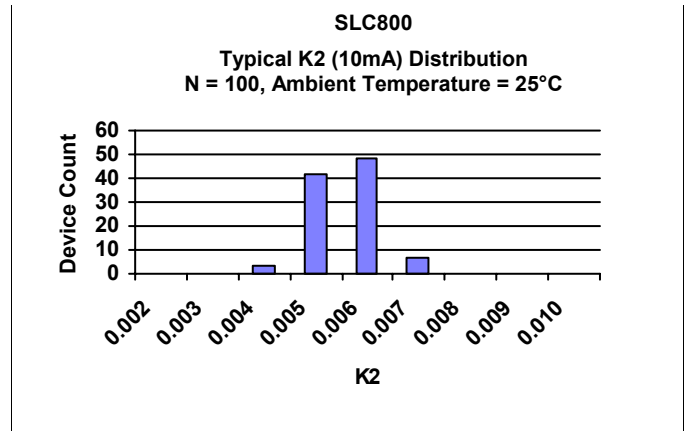
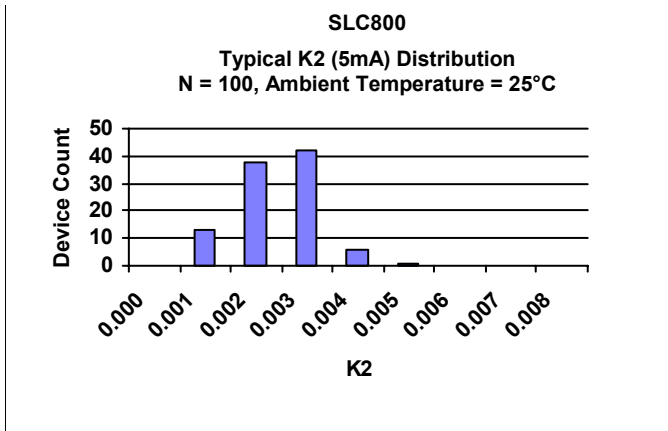
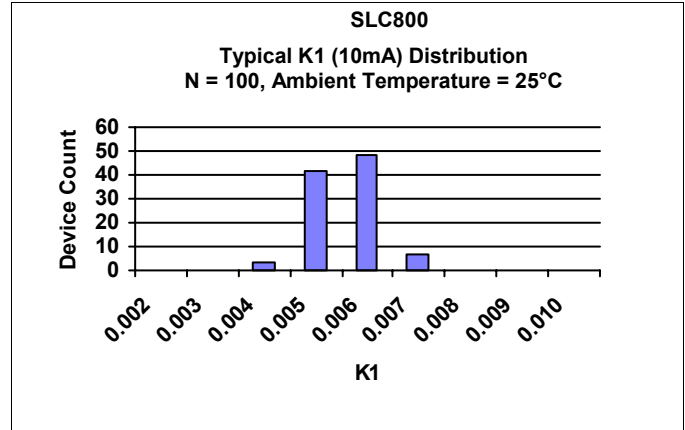
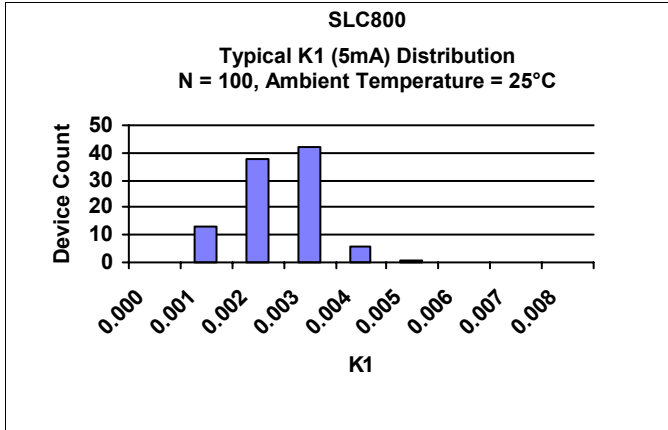
APPROVALS

- UL / C-UL Approved: File # E201932

ELECTRICAL CHARACTERISTICS - 25°C

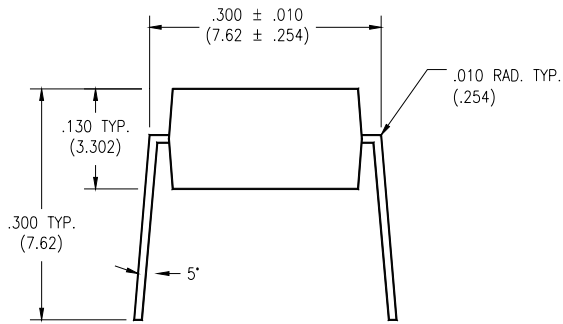
PARAMETER	UNIT	MIN	TYP	MAX	TEST CONDITIONS
INPUT SPECIFICATIONS					
LED Forward Voltage	V		1.2	1.5	If = 10mA
LED Reverse Voltage	V	6	12		Ir = 10uA
Forward LED Current	m A			40	
COUPLER/DETECTOR CHARACTERISTICS @25°C					
K1 Servo Gain (I1/If)		0.001	0.002	0.01	If = 0.3-1.0mA, Vcc = 15V
K1 Servo Gain (I1/If)		0.002	0.004	0.01	If = 1-10mA, Vcc = 15V
K2 Forward Gain (I2/If)		0.001	0.002	0.01	If = 0.3-1.0mA, Vcc = 15V
K2 Forward Gain (I2/If)		0.002	0.004	0.01	If = 1-10mA, Vcc = 15V
K3 Transfer Gain (K2/K1)		0.98	1	1.02	If = 0.3-10.0mA, Vcc = 15V
Transfer Gain Linearity	%		0.07	0.1	If = 0.3-10.0mA
Isolation Voltage	V	1500			T = 1 minute
PHOTOCONDUCTIVE OPERATION @25°C					
Frequency Response (-3dB)			140		If = 10mA, dV = 2V
Phase Response			-45		f = 140kHz

PERFORMANCE DATA

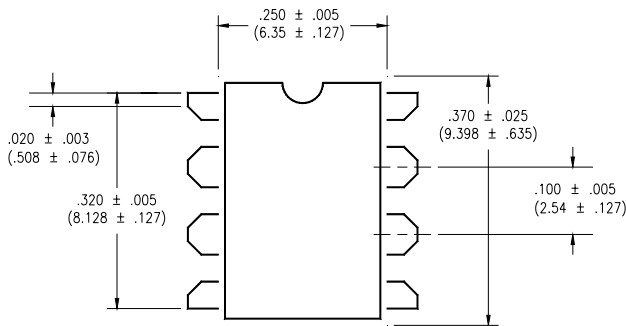


MECHANICAL DIMENSIONS

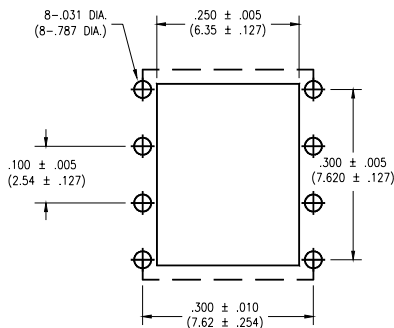
8 PIN DUAL IN-LINE PACKAGE



END VIEW

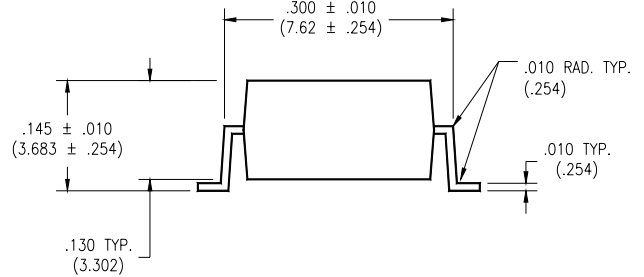


TOP VIEW

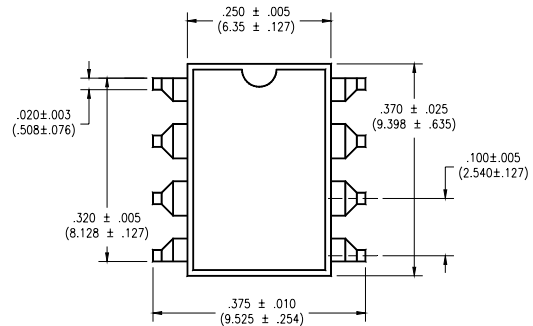


**BOTTOM VIEW/
BOARD PATTERN**

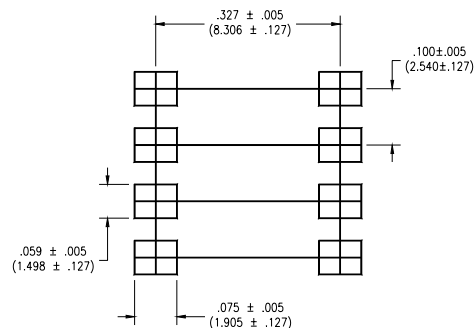
8 PIN SURFACE MOUNT DEVICE



END VIEW



TOP VIEW



**BOTTOM VIEW/
BOARD PATTERN**

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