

**DESCRIPTION**

This is a Silicon NPN Opto-Electronic coupler designed for applications requiring high CTR gain at low operating currents and high voltage isolation.

**ABSOLUTE MAXIMUM RATINGS**

- Storage temperature..... -65°C to +125°C
- Operating temperature..... -55°C to +100°C
- Lead solder temperature..... 260°C, 10 seconds
- Input/Output Voltage..... 1,000 Volts

**LIGHT EMITTING DIODE MAXIMUM RATINGS**

- Reverse Voltage..... 2 Volts
- Forward Current ..... 40 mA dc
- Pulsed Current ..... 1 A (pk)  
 (1.0 μs Pulse Width, 300 pps)

**FEATURES**

- High CTR Gain, typically 500 % CTR
- High Isolation, 10<sup>11</sup> Ohms minimum
- High Reliability
- Hermetic TO-5, 6-Lead Package
- Military level screened devices available

**PHOTO TRANSISTOR MAXIMUM RATINGS**

- Collector-Emitter Breakdown Voltage...40 V dc
- Collector-Base Breakdown Voltage.....45 V dc
- Emitter-Base Breakdown Voltage..... 7 V dc
- Power Dissipation.....300 mW
- Collector Current..... 50 mA

**ELECTRO-OPTICAL CHARACTERISTICS (Case T = 25°C)**

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP	MAX	UNIT
Collector Emitter Breakdown	IC = 1 mA	VBRCEO	40			Volts
Emitter - Base Breakdown	IE = 100 μA	VBRECO	7			Volts
Collector - Base Breakdown	IC = 100 μA	VBR CBO	45			Volts
Collector - Emitter Dark Current	VCE = 20V	IC(off)			100	nA
Collector - Base Dark Current	VCB = 20 V	ICB (off)			10	nA
Collector-Emitter Saturation	IC = 2 mA, If = 2 mA	VCE(sat)			0.3	Volts
Response Time	10%-90%, If = 5 mA VCE = 10 V, RL=100 Ω	tr			25	μsec
		tf			25	μsec
Current Gain	IC = 10 mA, VCE = 5 V	Hfe	100			
Collector Current (On state)	IF = 1 mA, VCE = 5 V	IC (on)	2.0		10.0	mA
Base Current (On state)	IF = 10 mA, VCB = 5 V	ICB (on)	30			μA
Reverse Current (LED)	VR = 2 V	IR			100	μA
Forward Voltage (LED)	IF = 10 mA	VF	0.8		1.5	Volts
Capacitance	V = 0 V, f = 1 MHz	CIO			5	pF