

DESCRIPTION

This is a Silicon NPN Opto-Electronic coupler designed for applications requiring low 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

- ☐ Low CTR Gain, typically 25 % CTR
- ☐ High Isolation, 10¹¹ Ohms minimum
- ☐ High Reliability
- ☐ Hermetic TO-5, 6-Lead Package
- ☐ Military level screened devices available
- ☐ Isolated package version available

PHOTO TRANSISTOR MAXIMUM RATINGS

- ☐ Collector-Emitter Breakdown Voltage...35 V dc
- ☐ Collector-Base Breakdown Voltage.....35 V dc
- ☐ Emitter-Base Breakdown Voltage..... 4 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	$I_C = 1 \text{ mA}$	V _{BRCEO}	35			Volts
Emitter - Base Breakdown	$I_E = 100 \text{ } \mu\text{A}$	V _{BRECO}	4			Volts
Collector - Base Breakdown	$I_C = 100 \text{ } \mu\text{A}$	V _{BRCBO}	35			Volts
Collector - Emitter Dark Current	V _{CE} = 20V	I _{C(off)}			100	nA
Collector-Emitter Saturation	$I_C = 2.5 \text{ mA}$, $I_f = 20 \text{ mA}$	V _{CE(sat)}			0.3	Volts
Capacitance	V = 0 V, f = 1 MHz	C _{IO}			5	pF
Response Time	10%-90%, $I_f = 10 \text{ mA}$ V _{CE} = 20 V, R _L =100 Ω	t _r			15	µsec
		t _f			15	µsec
Current Gain	$I_C = 10 \text{ mA}$, V _{CE} = 5 V	H _{fe}	200			
Collector Current (On state)	$I_f = 10 \text{ mA}$, V _{CE} = 5 V	I _{C (on)}	2.5			mA
Collector Current (On state)	$I_f = 2 \text{ mA}$, V _{CE} = 5 V	I _{C (on)}	0.15			mA
Reverse Current (LED)	V _R = 2 V	I _R			100	µA
Forward Voltage (LED)	$I_f = 10 \text{ mA}$	V _F	0.8		1.5	Volts