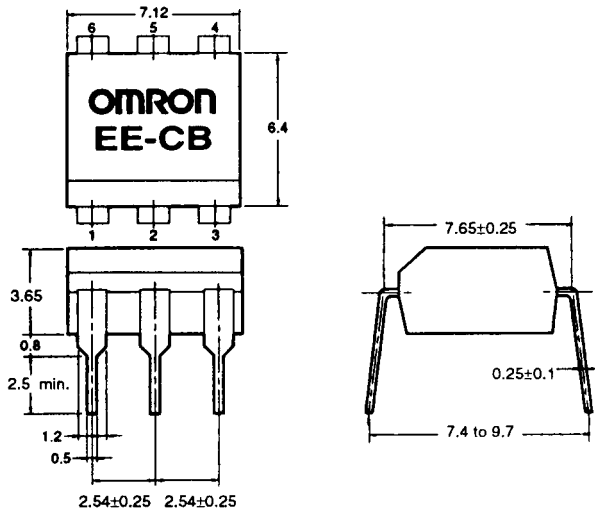
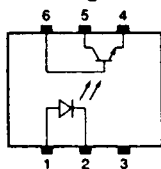


■ Dimensions

Note: All units are in millimeters unless otherwise indicated.



Terminal Arrangement (Top View)



Unless otherwise specified, the tolerances are as shown below.

Terminal No.	Name
1	Anode
2	Cathode
3	N.C
4	Emitter
5	Collector
6	Base

Dimensions	Tolerance
3 mm max.	±0.3
3 < mm ≤ 6	±0.375
6 < mm ≤ 10	±0.45
10 < mm ≤ 18	±0.55
18 < mm ≤ 30	±0.65

■ Features

- Incorporates an emitter with a GaAs infrared LED and a detector with an Si planar phototransistor.
- Easy-to-use standard DIP construction.
- High performance with a current conversion rate of 150% (typical) and an AC insulation dielectric strength of 2.5 kV for one minute.
- Incorporates an output transistor with a base terminal ideal for a wide variety of applications.

■ Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rated value
Emitter	Forward current	I_F 50 mA (see note 1)
	Pulse forward current	I_{FP} 1 A (see note 2)
	Reverse voltage	V_R 5 V
Detector	Collector-Base voltage	V_{CBO} 50 V
	Collector-Emitter voltage	V_{CEO} 35 V
	Emitter-Base voltage	V_{EBO} 5 V
	Emitter-Collector voltage	V_{ECO} 5 V
	Collector current	I_C 30 mA
	Collector dissipation	P_C 150 mW (see note 1)
Ambient temperature	Operating	T_{opr} -30°C to 90°C
	Storage	T_{stg} -55°C to 100°C
	Soldering	T_{sol} 260°C
Package total loss	P_T	200 mW

- Note: 1. Refer to the temperature rating chart if the ambient temperature exceeds 25°C.
2. The pulse width is 10 μs maximum with a frequency of 100 Hz.

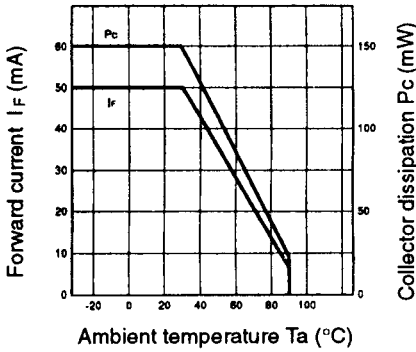
■ Electrical and Optical Characteristics (Ta = 25°C)

Item	Symbol	Value	Condition
Emitter	Forward voltage	V_F 1.2 V typ., 1.5 V max.	$I_F = 30$ mA
	Reverse current	I_R 10 μA max.	$V_R = 4$ V
Detector	Dark current	I_D 10 nA typ., 100 nA max.	$V_{CE} = 10$ V
	Collector-Emitter saturated voltage	$V_{CE(sat)}$ 0.4 V max.	$I_F = 20$ mA, $I_C = 2$ mA
	Capacitance between collector and emitter	C_{CE} 5 pF typ.	$V_{CE} = 0$ V
	Capacitance between collector and base	C_{CB} 40 pF typ.	$V_{CE} = 0$ V
	DC amplification rate	h_{fe} 1,000 typ.	$V_{CE} = 5$ V, $I_B = 3.3$ μA
Response frequency	f_T 70 kHz typ.	$V_{CC} = 10$ V, $I_F = 10$ mA, $R_L = 0.1$ kΩ -3dB point	
Conversion rate	CTR 70% min.	$I_F = 10$ mA, $V_{CE} = 10$ V	
Insulation dielectric strength	V_{iso} 2.5 kVAC min.	For 1 min, RH = 40% to 60%	
Insulation resistance	R_{iso} 10 ¹² Ω typ.	500 V, RH = 40% to 60%	
Coupling capacitance	C_{iso} 0.8 pF typ.	RH = 40% to 60%	
Rising time	t_r 3 μs typ.	$V_{CC} = 10$ V, $R_L = 0.1$ kΩ, $I_L = 10$ mA	
Falling time	t_f 3 μs typ.	$V_{CC} = 2$ V, $R_L = 0.1$ kΩ, $I_L = 10$ mA	

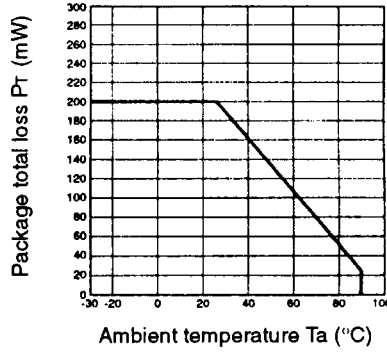
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Engineering Data

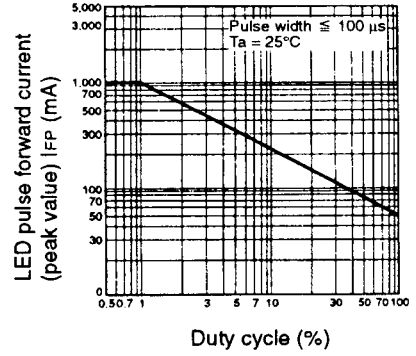
Forward Current vs. Collector Dissipation Temperature Rating



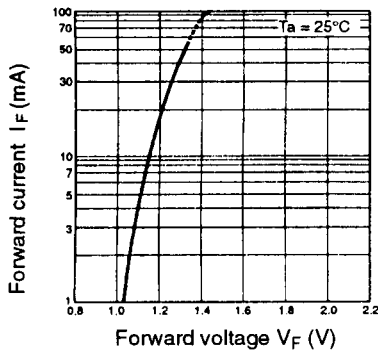
Package Total Loss Temperature Characteristics



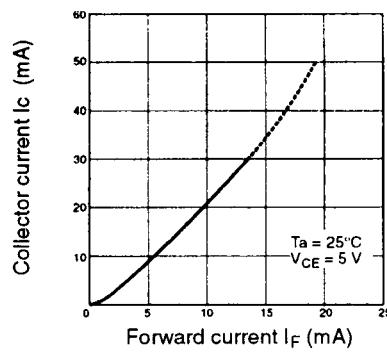
Pulse Forward Current Characteristics



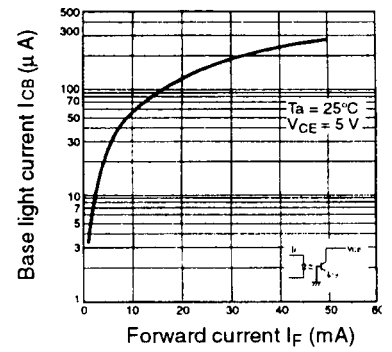
Forward Current vs. Forward Voltage Characteristics (Typical)



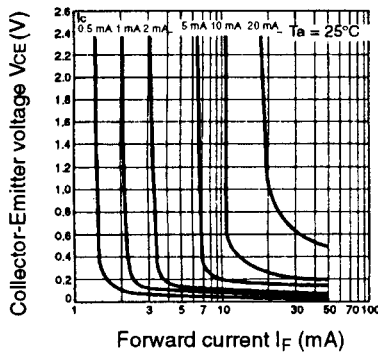
Collector Current vs. Forward Current Characteristics (Typical)



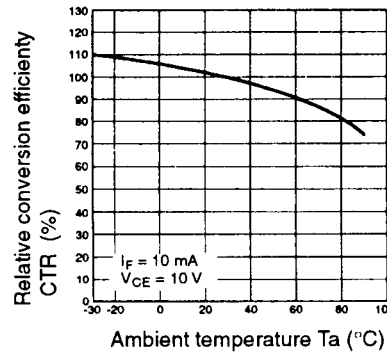
Base Light Current vs. Forward Current Characteristics (Typical)



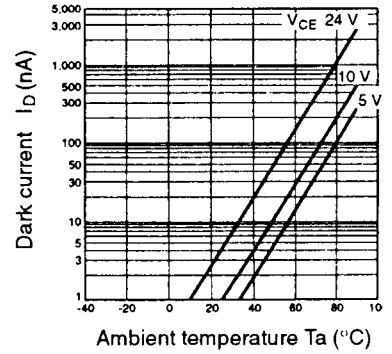
Collector-Emitter Voltage vs. Forward Current Characteristics (Typical)



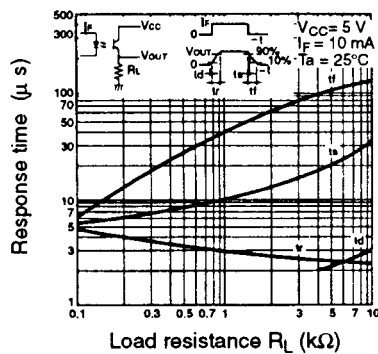
Conversion Efficiency vs. Ambient Temperature Characteristics (Typical)



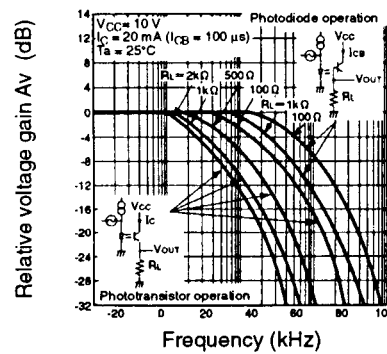
Dark Current vs. Ambient Temperature Characteristics (Typical)



Response Time vs. Load Resistance Characteristics (Typical)



Voltage Gain vs. Frequency Characteristics (Typical)



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