



Hutton Close, Crowther Ind Est, Washington, Tyne & Wear NE38 0AH, England
<mailto:sales@isocom.uk.com> - Tel: +44 (0)191 4166546 - Fax: +44 (0)191 4155055

IS354, ISK620

GaAs IRED and Phototransistor

[Circuit](#)
[Features](#)
[Description](#)
[Absolute Maximum Ratings](#)
[Electrical Characteristics](#)

[Similar Optocouplers](#)
[Home Page](#)

Circuit



Features

- AC or Polarity Insensitive Inputs
- Fast Switching Speeds
- Built-in Reverse Polarity Input Protection
- High Isolation Voltage
- High Isolation Resistance
- I/O Compatible with Integrated Circuits

Description

The IS354 and ISK620 each consist of two Gallium Arsenide infrared emitting diodes connected in inverse parallel and coupled with Silicon phototransistor in a dual-in-line package. Surface Mount Option Available.

Absolute Maximum Ratings (Ta=25°C)

Storage Temperature:	-55°C to +150°C
Operating Temperature:	-55°C to +100°C
Lead Soldering:	260°C for 10s, 1.6mm from case
Input-To-Output Isolation Voltage:	2500Vpeak, 1770Vrms

Input Diode

Forward DC Current:	60mA
Peak Input Current:	1A

Output Transistor

Collector-Emitter Voltage Vce:	55V
Emitter-Collector Voltage Veco:	7V
Collector Current Ic:	50mA

Package

Total Power Dissipation Pt:	250mW
-----------------------------	-------

Electro-optical Characteristics (Ta=25°C)

INPUT	PARAMETER	CONDITIONS	VALUE	
V _F	Input Voltage	I _F =±10mA	1.3 V	Max
C _J	Capacitance	V=0, f=1MHz	60 pF	Typ
V _{(BR)CEO}	Breakdown Voltage	I _F =0, I _C =10mA	55 V	Min
V _{(BR)CBO}		I _F =0, I _C =100µA	70 V	Min
V _{(BR)EBO}		I _F =0, I _E =100µA	7 V	Min
I _{CEO}	Collector Dark Current	I _F =0, V _{CE} =10V	100 nA	Max
COUPLED				
I _C /I _F	Current Transfer Ratio	V _{CE} =10V, I _F =±10mA	50 %	Min
V _{CE(SAT)}	Saturation Voltage Collector to Emitter	I _{CEO} =0.5mA, I _F =±10mA	0.4 V	Max
	Current Transfer Ratio Symmetry	I _{CEO} /I _{CEO} (V _{CE} =10V, I _F =10mA)	0.33	Min
R _{IO}	Isolation Resistance Input-to-Output	V _{IO} =500Vdc	100	Gohm

Isocom takes great effort to ensure accurate data, but regrettably cannot be held liable for any error on its website. Visit [File Lists](#) to confirm old printouts are up-to-date.