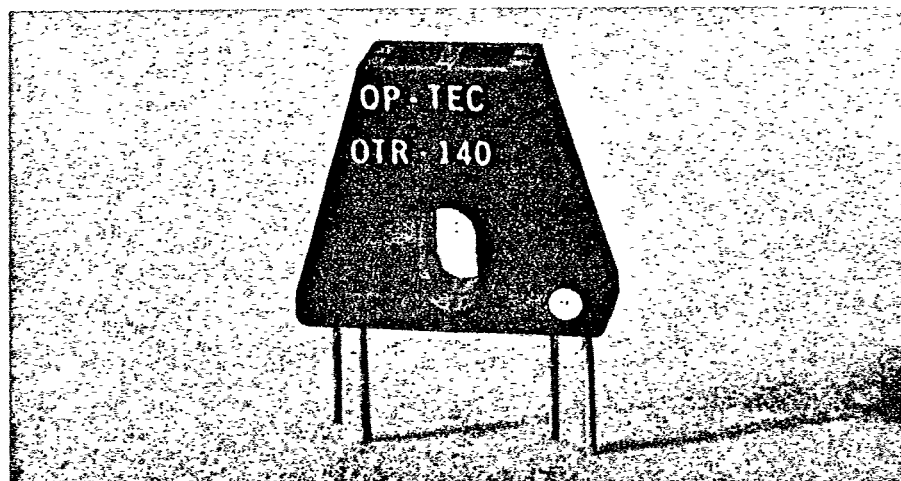




OPTO TECHNOLOGY

TYPE OTR 140 OTR 141

REFLECTIVE OBJECT SENSORS



NOT ACTUAL SIZE

DESCRIPTION

Opto Technology's reflective sensors combine a gallium arsenide infrared emitting diode and a silicon phototransistor or photodarlington in a molded plastic housing. These devices are especially useful as motion detectors, paper sensors, beginning and end of tape indicators, etc. Special assemblies and modifications of this device available upon request. IR transmitting filter to eliminate ambient light problems also available.

ELECTRICAL CHARACTERISTICS: (25°C)

TEST CONDITIONS	OTR 140 (3)		OTR 141 (4)		UNITS
	MIN.	MAX.	MIN.	MAX.	
$I_{CE(ON)}$ $I_F=40mA$, $V_{CE}=5V$, $d=.2$ in., Note (1)	50	—	—	—	μA
$I_F=10mA$, $V_{CE}=5V$, $d=.2$ inc., Note (1)	—	—	5	—	mA
I_{CX} $I_F=40mA$, $V_{CE}=5V$, Note (2)	—	1	—	10	μA
V_F $I_F=40mA$	—	1.6	—	1.6	V

ABSOLUTE MAXIMUM RATINGS: (25°C)

PHOTO-TRANSISTOR			
Power Dissipation	P_D	*75	mW
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Collector Voltage	V_{CEO}	6	V

*Derate 1.0mW/°C Above 25°C Ambient

INFRARED EMITTING DIODE			
Power Dissipation	P_E	*70	mW
Forward Current (Continuous)	I_F	40	mA
Reverse Voltage	V_R	4	V

*Derate .7mW/°C Above 25°C Ambient

TOTAL DEVICE

Storage Temperature T_{STG} -55°C to +100°C
 Operating Temperature T_J -25°C + 65°C
 Lead Soldering Temp. T_L 260°C
 (5 seconds maximum)

- NOTES: (1) Reflecting surface is an Eastman Kodak neutral white test card having a 90% diffused reflectance.
 (2) No reflecting surface. (3) Phototransistor (4) Photodarlington

