



IR Emitter and Detector Product Data Sheet

LTR-4206

Spec No.: DS-50-92-0072

Effective Date: 08/14/2002

Revision: D

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

ABSOLUTE MAXIMUM RATINGS AT $T_A=25^\circ\text{C}$

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	100	mW
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
Operating Temperature Range	-40°C to $+85^\circ\text{C}$	
Storage Temperature Range	-55°C to $+100^\circ\text{C}$	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	BIN NO.
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	30			V	I _C = 1mA Ee = 0mW/cm ²	
Emitter-Collector Breakdown Voltage	V _{(BR)ECO}	5			V	I _E = 100 μA Ee = 0mW/cm ²	
Collector Emitter Saturation Voltage	V _{CE(SAT)}			0.4	V	I _C = 0.5mA Ee = 1mW/cm ²	
Rise Time	Tr		10		μs	V _{CC} = 5V I _C = 1mA R _L = 1KΩ	
Fall Time	Tf		10		μs		
Collector Dark Current	I _{CEO}			100	nA	V _{CE} = 10V Ee = 0mW/cm ²	
On State Collector Current	I _{C(ON)}	0.8		2.4	mA	V _{CE} = 5V Ee = 1mW/cm ² λ = 940nm	BIN C
		1.6		4.8			BIN D
		3.2		9.6			BIN E
		6.4					BIN F

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

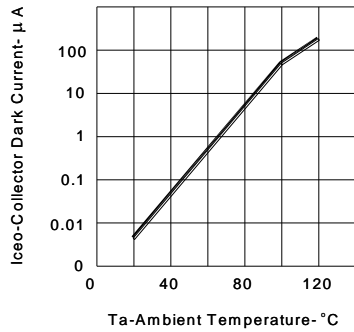


FIG.1 COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

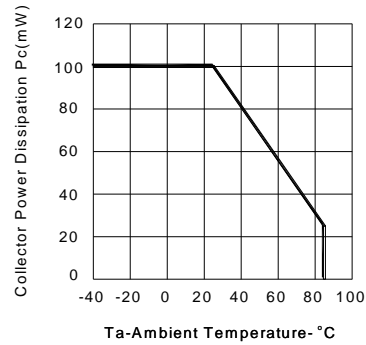


FIG.2 COLLECTOR POWER DISSIPATION VS AMBIENT TEMPERATURE

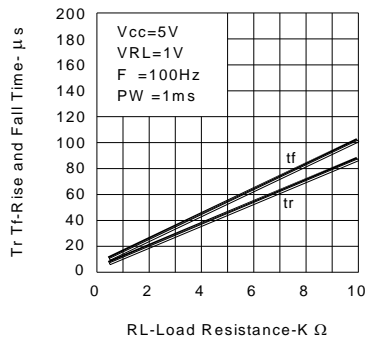


FIG.3 RISE AND FALL TIME VS LOAD RESISTANCE

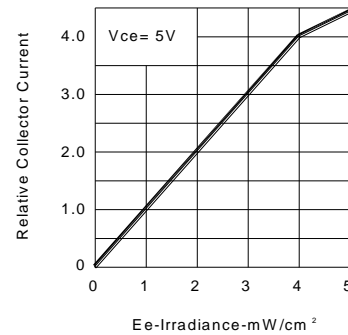


FIG.4 RELATIVE COLLECTOR CURRENT VS IRRADIANCE

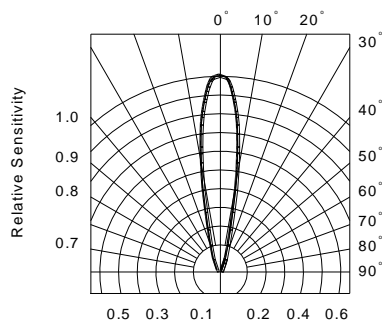


FIG.5 SENSITIVITY DIAGRAM