



IR Emitter and Detector Product Data Sheet LTR-5576DP1

Spec No.: DS-50-93-0027

Effective Date: 05/05/2000

Revision: E

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

ABSOLUTE MAXIMUM RATINGS AT TA=25°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°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX	UNIT	TEST CONDITION	BIN No.	Color Marking
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30			V	$I_c = 1mA$ $E_e = 0mW/cm^2$		
Emitter-Collector Breakdown Voltage	$V_{(BR)ECO}$	5			V	$IE = 100 \mu A$ $E_e = 0mW/cm^2$		
Collector Emitter Saturation Voltage	$V_{CE(SAT)}$		0.1	0.4	V	$I_c = 50 \mu A$ $E_e = 0.5mW/cm^2$		
Rise Time	T_r		15		μs	$V_{CC} = 5V$ $I_c = 1mA$ $R_L = 1K\Omega$		
Fall Time	T_f		18		μs			
Collector Dark Current	I_{CEO}		0.1	100	nA	$V_{CE} = 10V$ $E_e = 0mW/cm^2$		
On Stage Collector Current Ratio (I_{L1}/I_{L2})	R	0.8	1.0	1.25				
Average On State Collector Current Range Setting of LITE-ON Production (I_{L1}/I_{L2}) / 2	$I_{C(ON)}$	200		300	μA	$V_{CE} = 5V$ $E_e = 1mW/cm^2$	BIN A	Red
		300		400			BIN B	Black
		400		500			BIN C	Green
		500		600			BIN D	Blue
		600		700			BIN E	White
		700		800			BIN F	Purple
Average On State Collector Current Range Q.C Limits (I_{L1}/I_{L2}) / 2	$I_{C(ON)}$	160		360	μA	$V_{CE} = 5V$ $E_e = 1mW/cm^2$	BIN A	Red
		240		480			BIN B	Black
		320		600			BIN C	Green
		400		720			BIN D	Blue
		480		840			BIN E	White
		560		960			BIN F	Purple

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

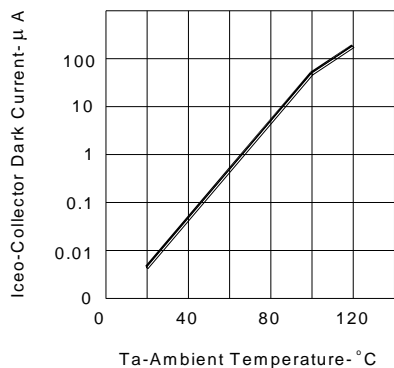


FIG.1 COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

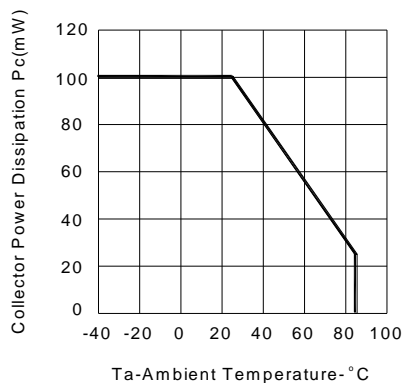


FIG.2 COLLECTOR POWER DISSIPATION VS AMBIENT TEMPERATURE

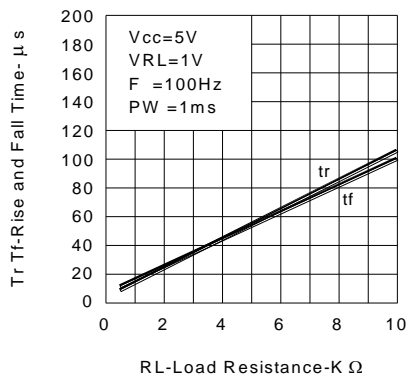


FIG.3 RISE AND FALL TIME VS LOAD RESISTANCE

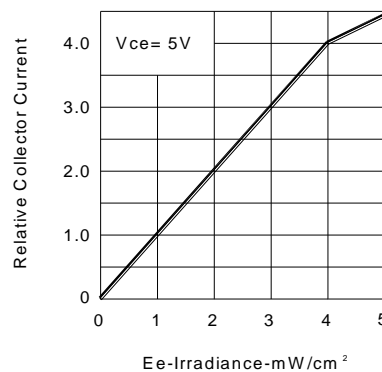


FIG.4 RELATIVE COLLECTOR CURRENT VS IRRADIANCE