

UNCONTROLLED DOCUMENT

UNDER REVISION

SC:0.25

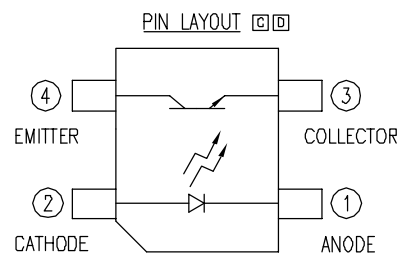
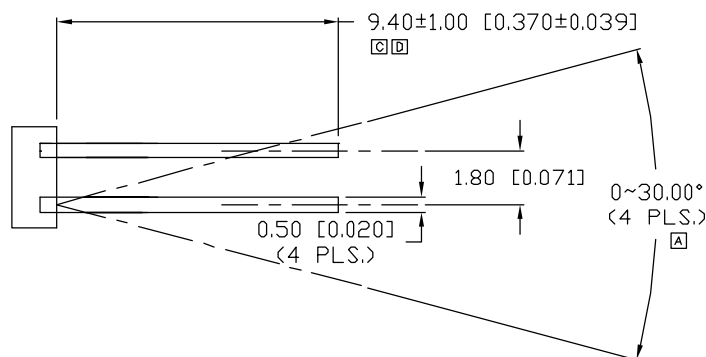
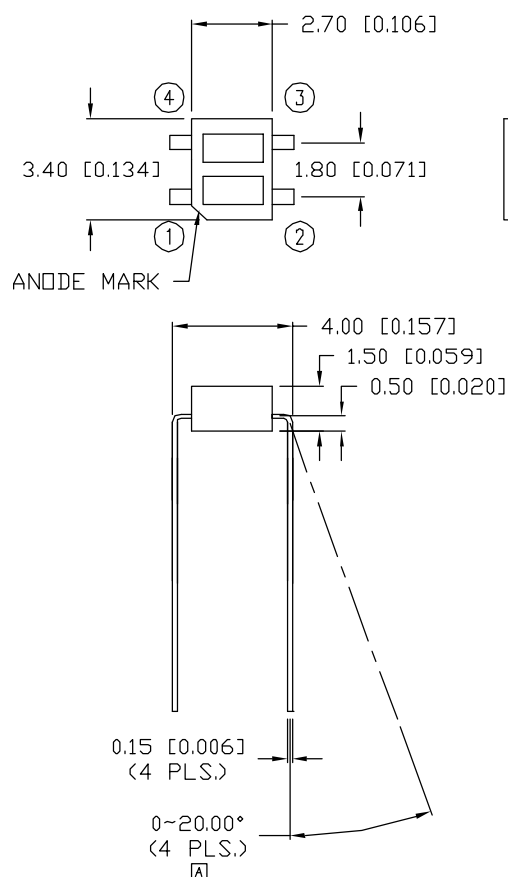
PART NUMBER

OED-SR-105F

REV.

D

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #10534.	7.8.99
B	E.C.N. #10BRDR. & REDRAWN.	5.1.03
C	E.C.N. #11431.	8.17.07
D	E.C.N. #11549.	12.10.08

ELECTRO-OPTICAL CHARACTERISTICS $T_A=25^\circ\text{C}$

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST COND
PEAK WAVELENGTH			940		nm	
INPUT:						
FORWARD VOLTAGE	V_f		1.2	1.6	V	$I_f = 10\text{ mA}$
REVERSE CURRENT	I_r			10	μA	$V_r = 6\text{ V}$
OUTPUT:						
COLLECTOR DARK CURRENT	I_{ceo}			1	μA	$V_{ce} = 10\text{ V}$
COLLECTOR LIGHT CURRENT	I_L	100			μA	$V_{ce} = 5\text{ V}$ $I_f = 20\text{ mA}$
LEAKAGE CURRENT	I_{ceod}			1	μA	$V_{ce} = 25\text{ V}$ $I_f = 4\text{ mA}$
SWITCHING SPEEDS:						
RISING TIME	T_r		20		μS	$V_{cc} = 2\text{ V}$ $I_c = 10\text{ mA}$
FALLING TIME	T_f		20		μS	$R_l = 100\ \Omega$

LIMITS OF SAFE OPERATION AT 25°C PERCHIP

PARAMETER	SYMBOL	MAX	UNITS
INPUT:			
REVERSE VOLTAGE	V_r	5	V
POWER DISSIPATION	P_d	75	mW
FORWARD CURRENT	I_f	50	mA
PEAK FORWARD CURRENT	I_{fp}	1	A
OUTPUT:			
COLLECTOR POWER DISSIPATION	P_c	100	mW
COLLECTOR CURRENT	I_c	50	mA
C-E VOLTAGE	V_{ceo}	30	V
E-C VOLTAGE	V_{eco}	5	V
OPERATING TEMP.	T_{opr}	-25 TO +85	$^\circ\text{C}$
STORAGE TEMP.	T_{stg}	-30 TO +90	$^\circ\text{C}$
SOLDERING TEMP.	T_{sol}	+260	$^\circ\text{C}$
SOLDERDIST	dist.		5 SEC. MAX

* $T < 10\mu\text{S}$

REPLACES PART #: OED-SG-105F

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN=+DECIMAL PRECISION MAX=+0.00 -DECIMAL PRECISION

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REFLECTIVE PHOTO SENSOR,
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RELIABILITY NOTE

OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.



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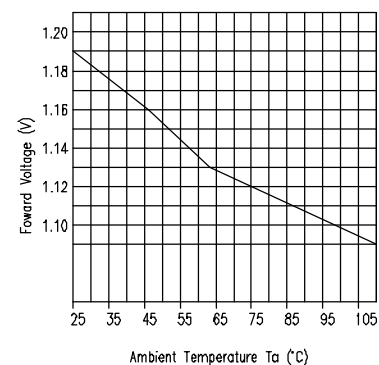
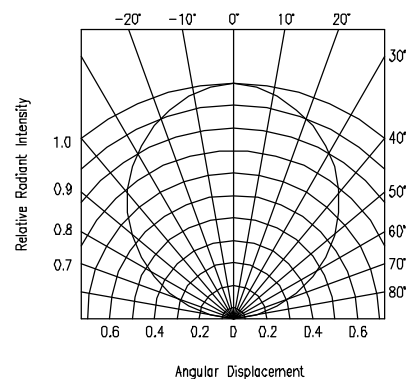
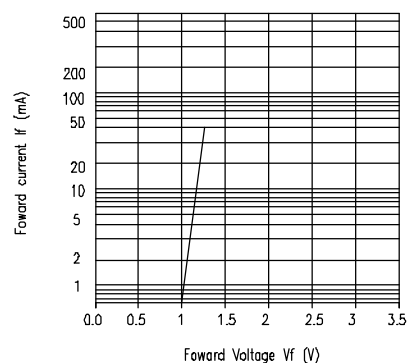
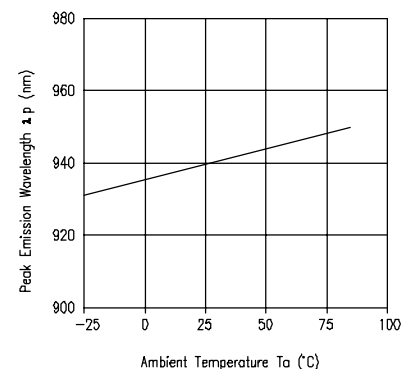
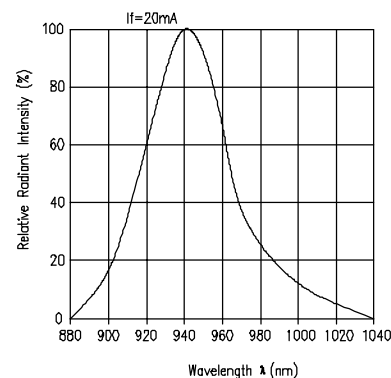
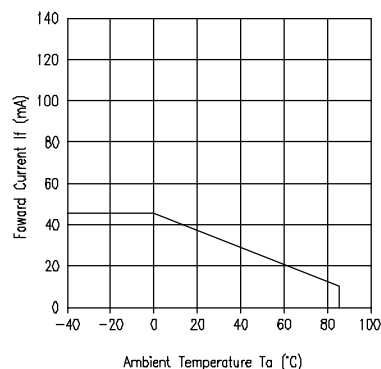
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SEE PAGE1.

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EMITTER CHARACTERISTIC CURVES



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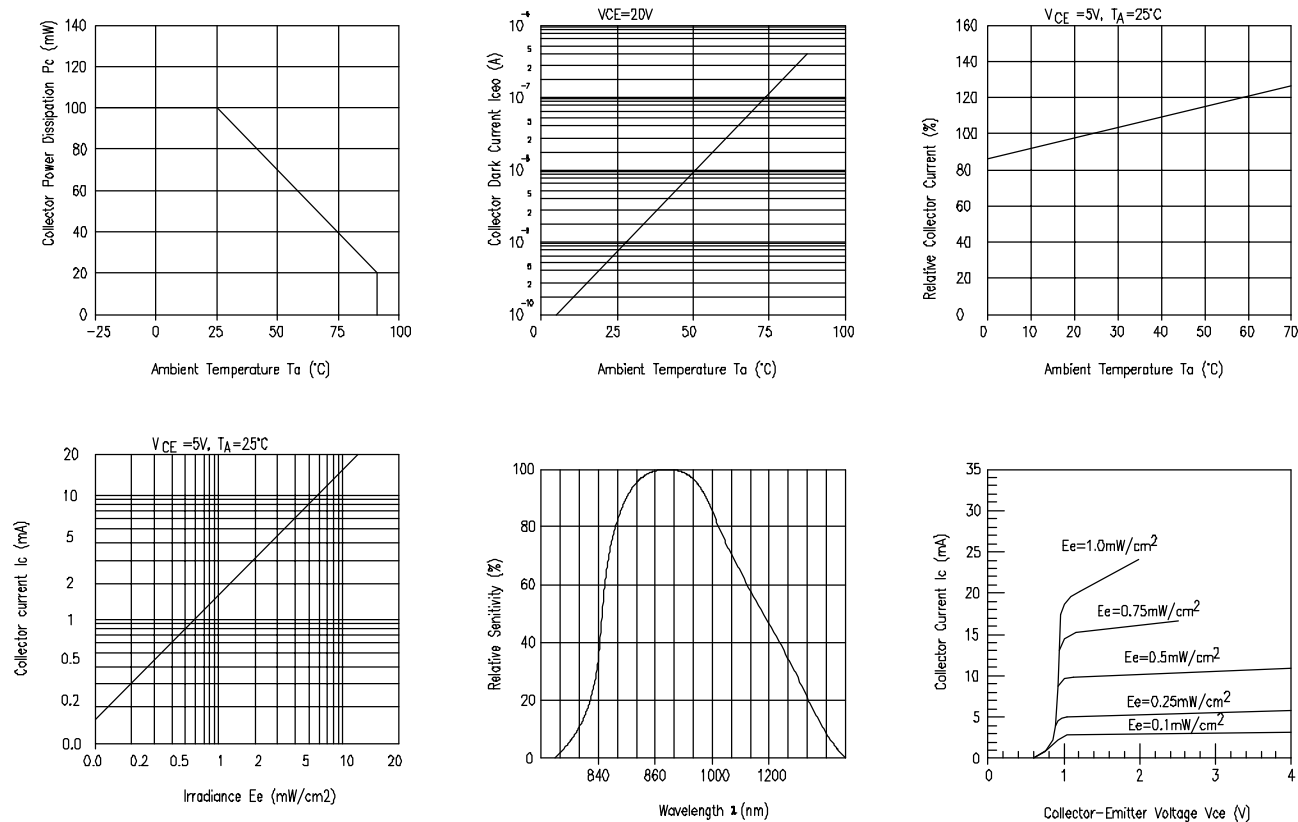
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PHOTO TRANSISTOR CHARACTERISTIC CURVES



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