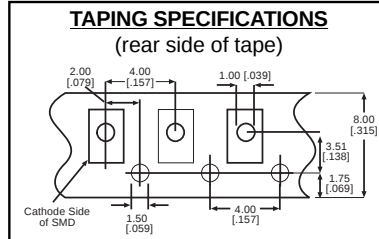
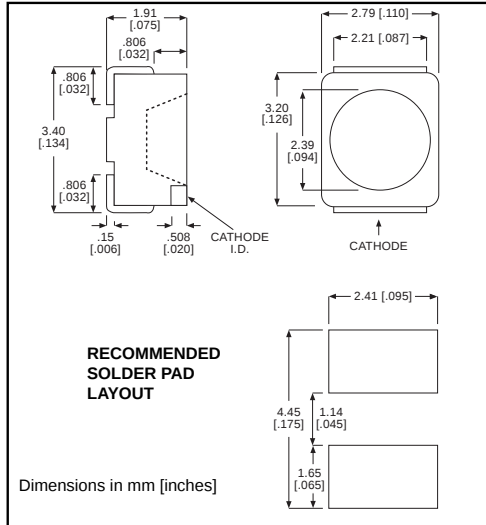


microLED[®]**Surface Mount LED
IR Photo Transistor****NEW****Dialight****597-4221-2xx****PART NO.***

597-4221-2xx

ORDERING INFORMATION*597-4221-2xx**packaging option 

02	20 pieces on tape
07	7" reel, 2000 pcs/reel

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

Operating and Storage Temperature Range ($^{\circ}\text{C}$)	-55/+100
Soldering Temperature ($\geq 2\text{mm}$ from case bottom)	
Dip Soldering Time (T_S) $t \leq 5$ s	260 $^{\circ}\text{C}$
Iron Soldering Time (T_S) $t \leq 3$ s	300 $^{\circ}\text{C}$
Collector Emitter Voltage (V_{CE0})	35V
Collector Current (I_C)	15 mA
Collector Peak Current (I_{PK}) $t < 10\mu\text{s}$	75 mA
Power Dissipation (P_{TOT}) $T_A=25^{\circ}\text{C}$	165 mW
Thermal Resistance (R_{THJA})	450 k/W

Benefits

- Compatible with automatic placement equipment
- Compatible with infrared reflow processes
- Packaged on 8mm tape, 7" reels (meets EIA-481-1 standard)
- Helps to eliminate mixed technology PC board processing
- Compatible with Dialight's Optopipe[™] Series light pipes

OPERATING CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Sensitivity Wavelength	λ_{Smax}	900	nm
Spectral Range, Photosensitivity	λ	730 min, 1120 max	nm
Radiant Sensitive Area	A	0.045 typ	mm ²
Distance, Chip Surface and Lens	H	2.4 typ, 2.8 max	mm
Full Angle	$2\theta_{1/2}$	120 $^{\circ}$	Deg.
Capacitance			
($V_{CE}=0$ V, $f=1$ MHz, $E=0$ lux)	C_{CE}	5	pF
Leakage Current ($V_{CE}=25$ V, $E=0$ lx)	I_{ce0}	1 typ, 200 max	nA
Photocurrent ($E_e=0.5$ mW/cm ² , $V_{CE}=5$ V, $\lambda=950$ nm)	I_{PCE}	16 min, 32 typ	μA
Rise/Fall Time ($I_C=1$ mA, $V_{CC}=5$ V, $R_L=1\text{k}\Omega$)	t_R, t_F	6.5 typ	μs
Collector Emitter, Saturation Voltage ($I_C=I_{PCEmin}^{(1)} \cdot 0.3$, $\lambda=950$ nm $E_e=0.1$ mW/cm ²)	V_{CEsat}	150	mV

Notes: (1) I_{PCEmin} = minimum photocurrent

Solder Adherence per MIL-STD-202E, Method 208C

Dialight Corporation • 1913 Atlantic Avenue • Manasquan, NJ 08736 • TEL: (732) 223-9400 • FAX: (732) 223-8788 • www.dialight.com