FAIRCHILD
SEMICONDUCTOR™

DIFFUSED T-100
SOLID STATE LAMPS

ELECTRO-OPTICAL CHARACTERISTICS
(25°C Free Air Temperature Unless Otherwise Specified)

PARAMETER		SYMBOL	TEST COND.	UNITS	MV50640* RED	MV5364X YELLOW	MV5464X HI. EFF. GREEN	MV5764X HI. EFF. RED
Forward voltage	typ. max.	V_F	I_F=10 mA	V	1.6 2.0	2.1 3.0	2.2* 3.0*	2.0 3.0
Peak wavelength		λ	I_F=10 mA	nm	660	585	562	635
Spectral line half width			I_F=10 mA	nm	20	35	30	45
Capacitance	typ.	C	V=0, f=1 MHz	pF	23	45	20	45
Reverse voltage	min.	V_{BR}	I_R=100 μA	V	5.0	5.0	5.0	5.0
Viewing angle (total)	typ.	2θ½	See Fig. 3	degrees	90	90	90	90

I_F=20 mA

ABSOLUTE MAXIMUM RATINGS (T_A=25°C Unless Otherwise Specified)

	YLW.	STD. RED	HER/HEG
Power dissipation at 25°C ambient	85	120 mW	120 mW
Derate linearly from 50°C	1.6 mW/°C	1.6 mW/°C	1.6 mW/°C
Storage and operating temperatures	−55°C to +100°C	−55°C to +100°C	−55°C to +100°C
Lead soldering time at 260°C (1/16 inch from body)	5 sec.	5 sec.	5 sec.
Continuous forward current at 25°C	20 mA	30 mA	30 mA
Peak forward current (1 μsec pulse, 0.3% duty cycle)	60 mA	1.0 A	90 mA
Reverse voltage	5.0 V	5.0 V	5.0 V

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TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES
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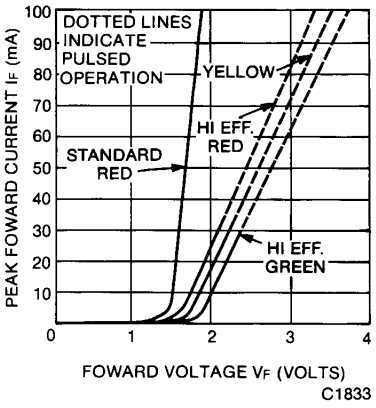

Fig. 1. Forward Current vs. Forward Voltage

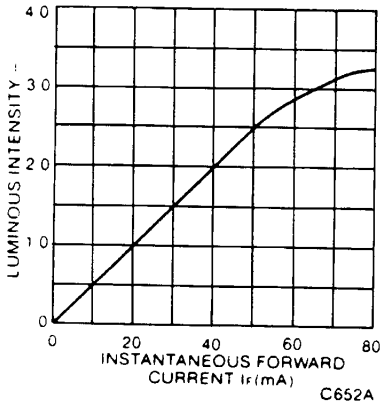

Fig. 2. Luminous Intensity vs. Forward Current

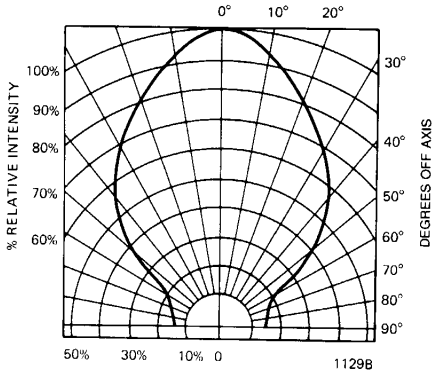

Fig. 3. Spatial Distribution

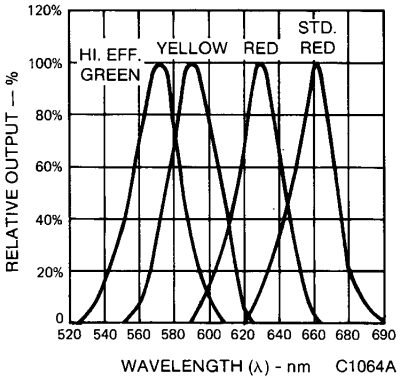

Fig. 4. Spectral Distribution

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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