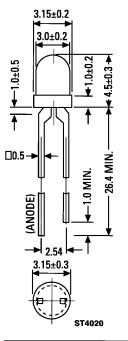


## **RED MV50640** YELLOW MV5364X HIGH EFFICIENCY GREEN MV5464X/HLMP-15X3 HIGH EFFICIENCY RED MV5764X/HLMP-130X

### **PACKAGE DIMENSIONS**



#### NOTES:

- ALL DIMENSIONS ARE IN MM.
   LEAD SPACING IS MEASURED
   WHERE THE LEADS EMERGE FROM THE PACKAGE.
  3. PROTRUDED RESIN UNDER
- THE FLANGE IS 1.5 mm (0.059")

### DESCRIPTION

These solid state indicators offer a variety of color selection. The High Efficiency Red and Yellow devices are made with gallium arsenide phosphide on gallium phosphide. The High Efficiency Green utilizes an improved gallium phosphide light emitting diode. All are encapsulated in epoxy packages with diffused lenses. Their small size, wide viewing angle, and small square leads contribute to their versatility as all-purpose indicators.

### **FEATURES**

- Replacement for the HLMP-1300 and -1500 product series
- 100 mil lead spacing T-1
- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

PHYSICAL CHARACTERISTICS					
ТҮРЕ	SOURCE COLOR	LENS EFFECT	INTE	NOUS NSITY C (mcd) TYP.	TEST CONDITIONS
MV50640	Standard Red	Red Diffused	0.5	1.5	I <sub>F</sub> =20 mA
MV53640	Yellow	Yellow Diffused	1.0	2.0 լ	$I_{\rm F}$ =10 mA
MV53641			1.5	3.0	
MV53642			2.5	4.5	
MV54643	High Efficiency Green	Green Diffused		•	
(HLMP-1503)			2.0	5.0 า	
MV54644				ļ	$I_F=20 \text{ mA}$
(HLMP-1523)			6.0	10.0	
MV57640	High Efficiency Red	Red Diffused			
(HLMP-1300)	g ,		1.0	2.0	
MV57641					
(HLMP-1301)			2.0	2.5	I₌=10 mA
MV57642					.,
(HLMP-1302)			3.0	4.0	



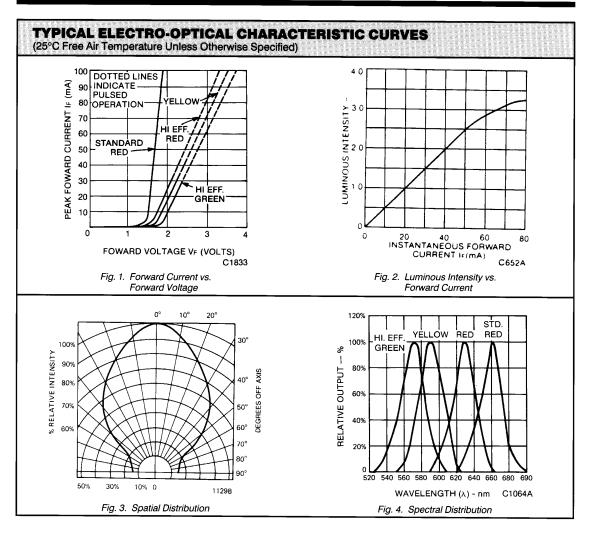
# DIFFUSED T-100 SOLID STATE LAMPS

PARAMETER	omporator	SYMBOL	erwise Specified)	UNITS	MV50640* RED	MV5364X YELLOW	MV5464X HI. EFF. GREEN	MV5764X HI. EFF. RED
Forward voltage	typ. max.	V <sub>F</sub>	I <sub>F</sub> =10 mA	V	1.6 2.0	2.1 3.0	2.2* 3.0*	2.0 3.0
Peak wavelength	-	λ	I <sub>F</sub> =10 mA	nm	660	585	562	635
Spectral line half width			l <sub>F</sub> =10 mA	nm	20	35	30	45
Capacitance	typ.	С	V=0, f=1 MHz	pF	23	45	20	45
Reverse voltage	min.	V <sub>BR</sub>	I <sub>R</sub> =100 μA	٧	5.0	5.0	5.0	5.0
Viewing angle (total)	typ.	201/2	See Fig. 3	degrees	90	90	90	90

<sup>\*</sup>I<sub>F</sub>=20 mA

	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
torage and operating temperatures	-55°C to +100°C	-55°C to +100°C	-55°C to +100°C
ead 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







## DIFFUSED T-100 SOLID STATE LAMPS

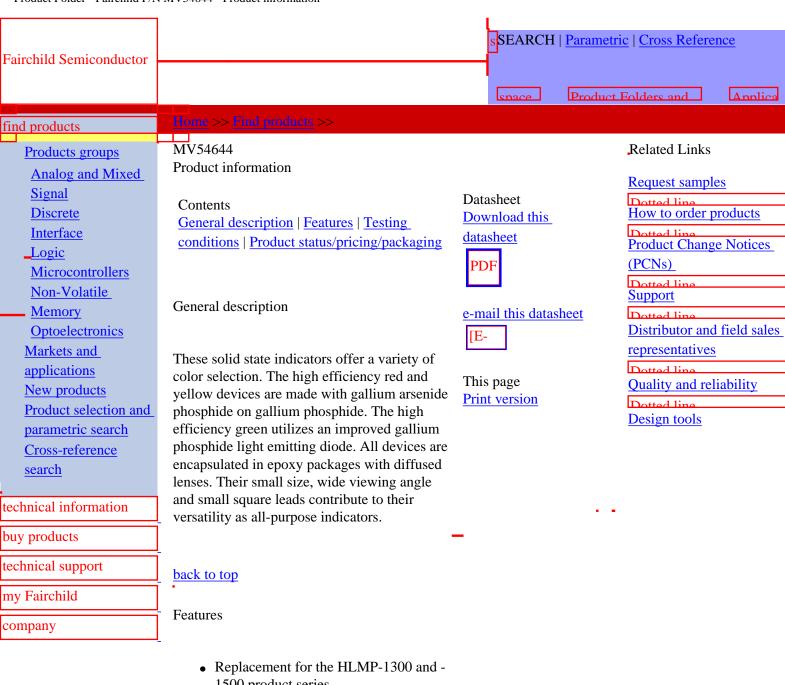
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- Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
- 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.



- 1500 product series
- 100 mil lead spacing T-1
- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

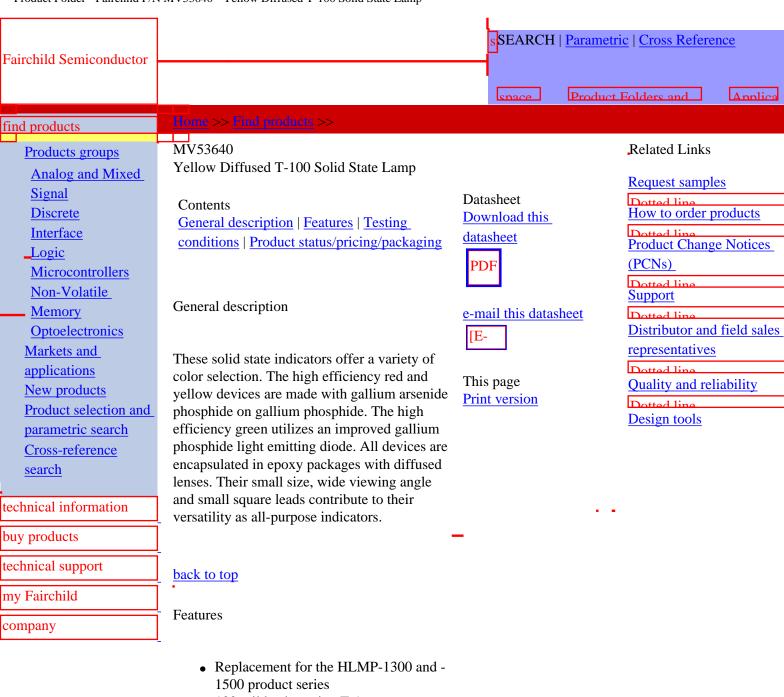
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV54644.C3A1	Full Production	N/A	T-100	AMMO
MV54644.C5A0	Full Production	\$0.058	T-100	AMMO
MV54644.C3A2	Full Production	N/A	T-100	AMMO
MV54644.D6A0	Full Production	\$0.058	T-100	AMMO
MV54644.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV54644.C3A0	Full Production	\$0.058	T-100	AMMO
MV54644	Full Production	\$0.051	T-100	BULK
MV54644.MP4A	Full Production	N/A	T-100, Right Angle	BULK
MV54644.C4A0	Full Production	\$0.058	T-100	AMMO
MV54644.C4A1	Full Production	N/A	T-100	AMMO
MV54644.C2A0	Full Production	\$0.058	T-100	AMMO
MV54644.C6A0	Full Production	\$0.058	T-100	AMMO
MV54644.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV54644.C1R2	Full Production	N/A	T-100	TAPE REEL

<sup>\* 1,000</sup> piece Budgetary Pricing

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- 100 mil lead spacing T-1
- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

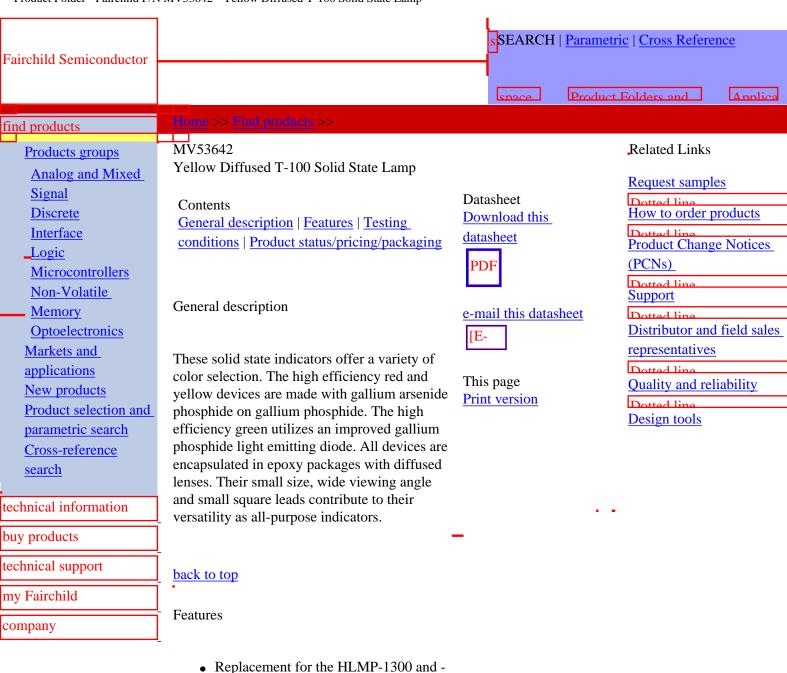
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV53640.C2A0	Full Production	\$0.058	T-100	AMMO
MV53640.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV53640.C4A0	Full Production	\$0.058	T-100	AMMO
MV53640.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV53640.C2R0	Full Production	\$0.058	T-100	TAPE REEL
MV53640.MP4A	Full Production	N/A	T-100, Right Angle	BULK
MV53640	Full Production	\$0.051	T-100	BULK
MV53640.C1A0	Full Production	\$0.058	T-100	AMMO

<sup>\* 1,000</sup> piece Budgetary Pricing

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- Replacement for the HLMP-1300 and 1500 product series
- 100 mil lead spacing T-1
- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

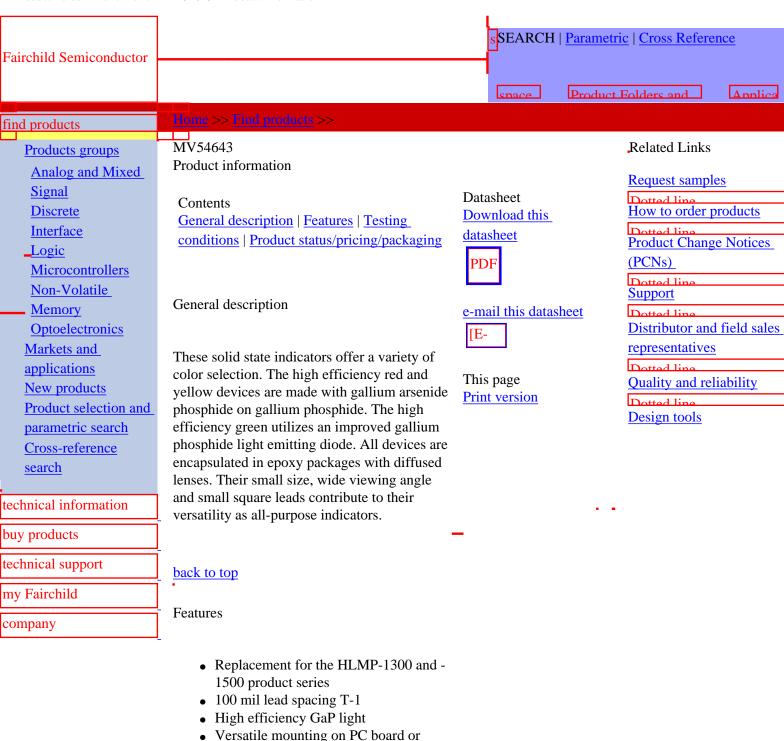
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV53642.C3A0	Full Production	\$0.058	T-100	AMMO
MV53642.C6A0	Full Production	\$0.058	T-100	AMMO
MV53642.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV53642.D5R0	Full Production	\$0.058	T-100	TAPE REEL
MV53642.MP4A	Full Production	N/A	T-100, Right Angle	BULK
MV53642.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV53642	Full Production	\$0.051	T-100	BULK
MV53642.C1R2	Full Production	N/A	T-100	TAPE REEL
MV53642.C4A0	Full Production	\$0.058	T-100	AMMO
MV53642.C4A1	Full Production	N/A	T-100	AMMO
MV53642.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV53642.D4R0	Full Production	\$0.058	T-100	TAPE REEL
MV53642.C5A0	Full Production	\$0.058	T-100	AMMO
MV53642.C5R1	Full Production	N/A	T-100	TAPE REEL

<sup>\* 1,000</sup> piece Budgetary Pricing

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- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

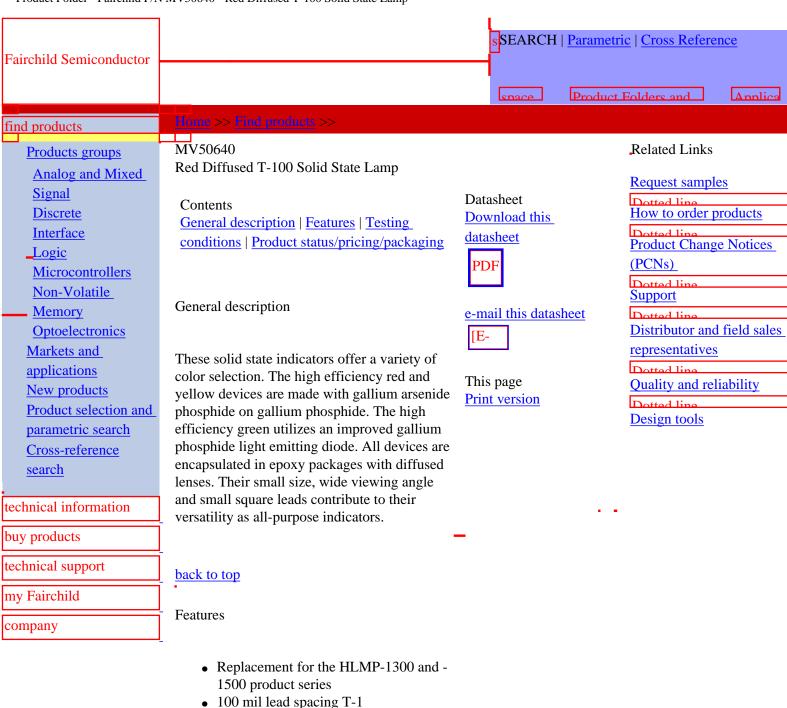
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV54643.C4A0	Full Production	\$0.058	T-100	AMMO
MV54643.C3A0	Full Production	\$0.058	T-100	AMMO
MV54643.C3A1	Full Production	N/A	T-100	AMMO
MV54643.C1A0	Full Production	\$0.058	T-100	AMMO
MV54643.C5A0	Full Production	\$0.058	T-100	AMMO
MV54643.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.C6A2	Full Production	N/A	T-100	AMMO
MV54643.C2R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.C6A0	Full Production	\$0.058	T-100	AMMO
MV54643.C3R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.D4A0	Full Production	\$0.058	T-100	AMMO
MV54643.D5R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643	Full Production	\$0.051	T-100	BULK
MV54643.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.C2A0	Full Production	\$0.058	T-100	AMMO
MV54643.D4R0	Full Production	\$0.058	T-100	TAPE REEL
MV54643.MP4A	Full Production	N/A	T-100, Right Angle	BULK
MV54643.D6A0	Full Production	\$0.058	T-100	AMMO

<sup>\* 1,000</sup> piece Budgetary Pricing

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- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

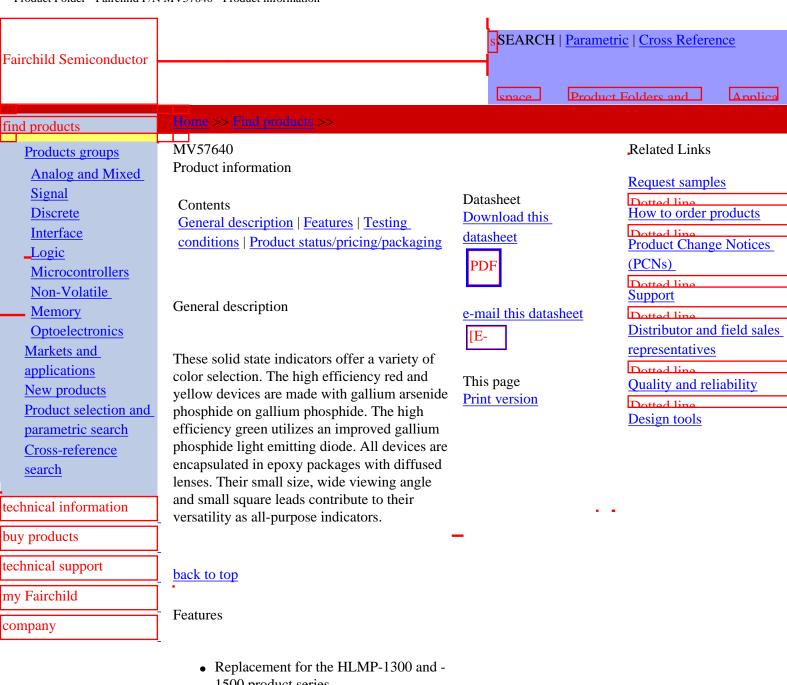
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV50640.A5R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640.C5A0	Full Production	\$0.058	T-100	AMMO
MV50640.D5R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640.MP4	Full Production	N/A	T-100, Right Angle	BULK
MV50640.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640	Full Production	\$0.051	T-100	BULK
MV50640.C3R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640.C1A0	Full Production	\$0.058	T-100	AMMO
MV50640.C4A0	Full Production	\$0.058	T-100	AMMO
MV50640.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV50640.C1R2	Full Production	N/A	T-100	TAPE REEL
MV50640C3R1	Full Production	N/A	T-100	TAPE REEL
MV50640.MP4A	Full Production	N/A	T-100, Right Angle	BULK

<sup>\* 1,000</sup> piece Budgetary Pricing

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- 1500 product series
- 100 mil lead spacing T-1
- High efficiency GaP light
- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

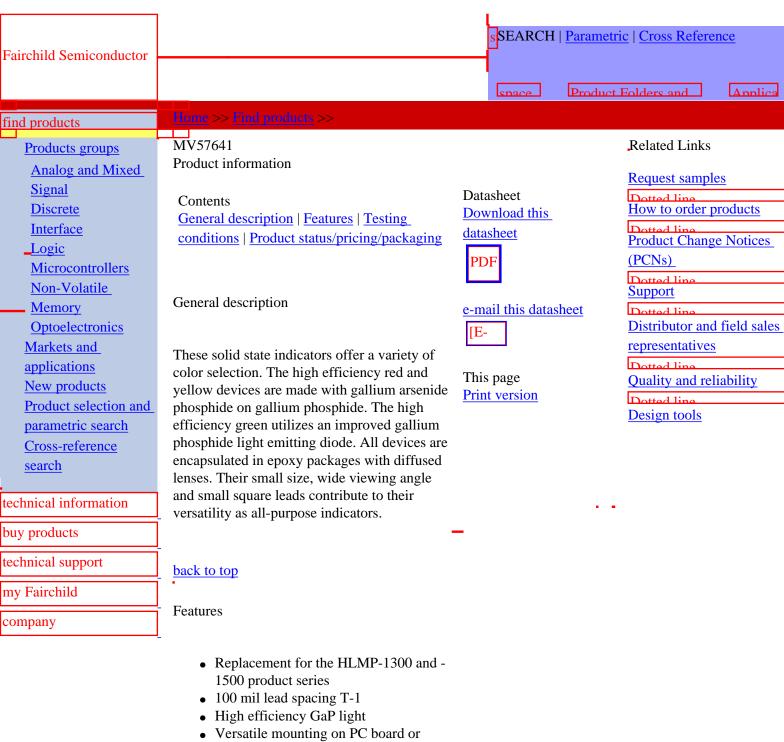
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV57640.C3A0	Full Production	\$0.058	T-100	AMMO
MV57640.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.D4A0	Full Production	\$0.058	T-100	AMMO
MV57640.C3A1	Full Production	N/A	T-100	AMMO
MV57640.MP4A	Full Production	N/A	T-100, Right Angle	BULK
MV57640	Full Production	\$0.051	T-100	BULK
MV57640.C4A0	Full Production	\$0.058	T-100	AMMO
MV57640.D4R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.C2R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.C3R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.C4R1	Full Production	N/A	T-100	TAPE REEL
MV57640.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV57640.C6A0	Full Production	\$0.058	T-100	AMMO

<sup>\* 1,000</sup> piece Budgetary Pricing

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- Versatile mounting on PC board or panel
- Wide viewing angle
- Diffused tinted lens

### Testing conditions

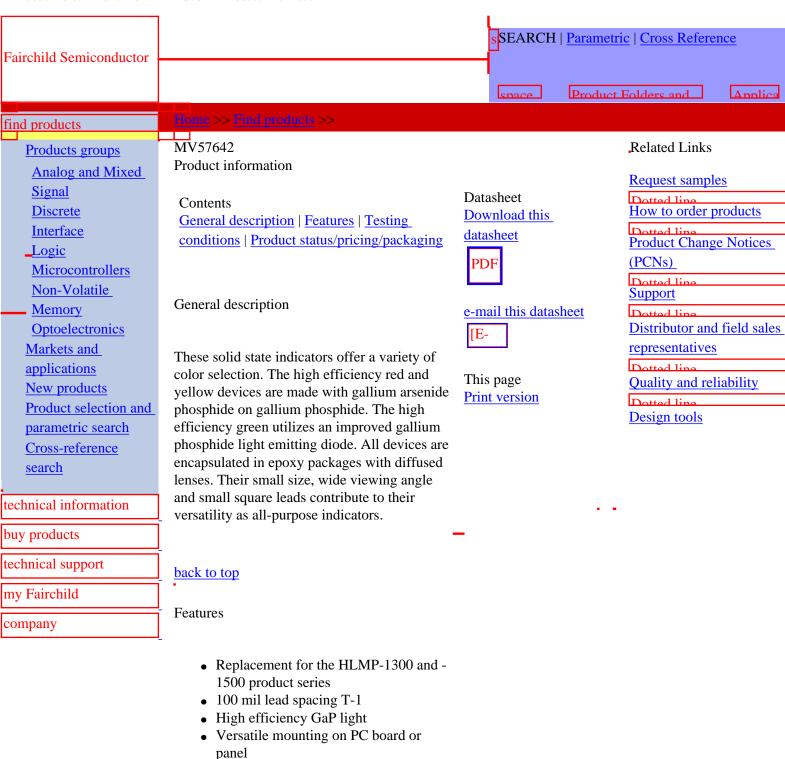
# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV57641.C3R0	Full Production	\$0.058	T-100	TAPE REEL
MV57641.D4R0	Full Production	\$0.058	T-100	TAPE REEL
MV57641.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV57641.MP4	Full Production	N/A	T-100, Right Angle	BULK
MV57641.D5R0	Full Production	\$0.058	T-100	TAPE REEL
MV57641	Full Production	\$0.051	T-100	BULK
MV57641.MP4A	Full Production	N/A	T-100, Right Angle	BULK

<sup>\* 1,000</sup> piece Budgetary Pricing

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### Testing conditions

Wide viewing angleDiffused tinted lens

# Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Packing method
MV57642.C4R1	Full Production	N/A	T-100	TAPE REEL
MV57642.C4A1	Full Production	N/A	T-100	AMMO
MV57642.C5R0	Full Production	\$0.058	T-100	TAPE REEL
MV57642.C4R0	Full Production	\$0.058	T-100	TAPE REEL
MV57642.C4A0	Full Production	\$0.058	T-100	AMMO
MV57642.C3A1	Full Production	N/A	T-100	AMMO
MV57642.C3A0	Full Production	\$0.058	T-100	AMMO
MV57642.C5A0	Full Production	\$0.058	T-100	AMMO
MV57642.A4A0	Full Production	\$0.058	T-100	AMMO
MV57642.C6R0	Full Production	\$0.058	T-100	TAPE REEL
MV57642.D6A0	Full Production	\$0.058	T-100	AMMO
MV57642.C6A0	Full Production	\$0.058	T-100	AMMO
MV57642.C2A0	Full Production	\$0.058	T-100	AMMO
MV57642.D5R0	Full Production	\$0.058	T-100	TAPE REEL
MV57642	Full Production	\$0.051	T-100	BULK
MV57642.MP4	Full Production	N/A	T-100, Right Angle	BULK
MV57642.C6R1	Full Production	N/A	T-100	TAPE REEL
MV57642.MP4A	Full Production	N/A	T-100, Right Angle	BULK

<sup>\* 1,000</sup> piece Budgetary Pricing

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