

DISCONTINUED				NEW (REPLACEMENT)			
Device	Ordering Code	Function	Package	Device	Ordering Code	Function	Package
SFH 450	Q62702P 1034	LL Diode	5mm Radial	SFH 756 *)	Q62702P 1716	LL Diode	5mm Radial
SFH 450-V	Q62702P 265	LL Diode	5mm Radial	SFH 756-V *)	Q62702P 1715	LL Diode	5mm Radial

*) kindly note application notice on page 2

Last order:	31. December 2004
Last delivery:	30. June 2005

Reason: low demand

Application Notice:

Change from SFH 450 to SFH 756

The main difference is the emission wavelength range and the forward voltage.

The SFH450 emits at 950nm, in the non visible infrared range, whereas the SFH 756 emits at the visible red 650 nm range.

The forward voltage at the SFH 756 is 2.1V at 10mA and less 2.8V for $I = 50\text{mA}$.

The forward voltage at the SFH 450 is 1.3V at 10mA.

SFH450 is specified at 10 mA typical value 90 μW absolute minimum 40 μW , tested between 40 μW and 200 μW .

SFH756 is specified at 10 mA typical value 200 μW absolute minimum 100 μW , tested between 100 μW and 500 μW .

Since there is a nearly linear function between drive current and the optical power the drive current has to be reduced by factor 2.5 if the SFH450 is replaced by SFH756.

We propose to change the current limiting resistor in order to adapt.

In case of a plastic optical fibre between the SFH450 and the receiver, the attenuation will be much lower using the SFH756, therefore please reduce the current to the SFH756.

In short pulse application, please take care to the lower maximum forward current of 50mA at the SFH 756.

In case of using a voltage source for the current through the transmitter, please adapt your circuit layout to the higher forward voltage of the SFH756.

All other parameters are very near together between SFH450 and SFH756. There is no application known where the remaining small differences may be critical.

The same is valid for the Plastic Connector Housing version SFH450-V and SFH756-V.