



# FODM452, FODM453

## PIN DEFINITIONS

Number	Name	Function Description
1	ANODE	Anode
3	CATHODE	Cathode
4	GND	Output Ground
5	$V_O$	Output Voltage
6	$V_{CC}$	Output Supply Voltage

## SAFETY AND INSULATION RATINGS FOR MINI-FLAT PACKAGE (SO5 PIN)

(As per DIN EN/IEC60747-5-5. This optocoupler is suitable for "safe electrical insulation" only within the safety limit data. Compliance with the safety ratings shall be ensured by means of protective circuits.)

Symbol	Parameter	Min	Typ	Max	Unit
	Installation Classifications per DIN VDE 0110/1.89 Table 1	-	-	-	
	For Rated Main Voltage <150 Vrms	-	I-IV	-	
	For Rated Main Voltage <300 Vrms	-	I-III	-	
	Climatic Classification	-	40/85/21	-	
	Pollution Degree (DIN VDE 0110/1.89)	-	2	-	
CTI	Comparative Tracking Index	175	-	-	
$V_{PR}$	Input to Output Test Voltage, Method b, $V_{IORM} \times 1.875 = V_{PR}$ , 100% Production Test with $t_m = 1$ s, Partial Discharge <5 pC	1060	-	-	
$V_{PR}$	Input to Output Test Voltage, Method a, $V_{IORM} \times 1.5 = V_{PR}$ , Type and Sample Test with $t_m = 60$ s, Partial Discharge <5 pC	848	-	-	
$V_{IORM}$	Max Working Insulation Voltage	565	-	-	$V_{peak}$
$V_{IOTM}$	Highest Allowable Over Voltage	4000	-	-	$V_{peak}$
	External Creepage	5.0	-	-	mm
	External Clearance	5.0	-	-	mm
	Insulation thickness	0.5	-	-	mm
$T_{Case}$	Safety Limit Values, Maximum Values Allowed in the Event of a Failure, Case Temperature	150	-	-	°C
$R_{IO}$	Insulation Resistance at $T_S$ , $V_{IO} = 500$ V	$10^9$	-	-	$\Omega$

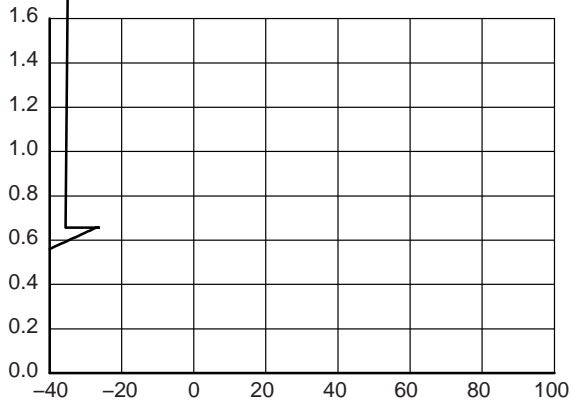
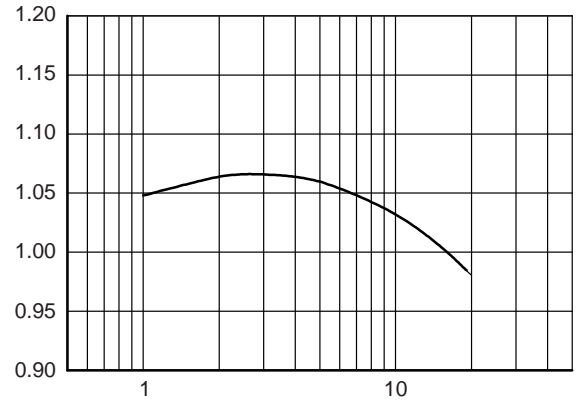
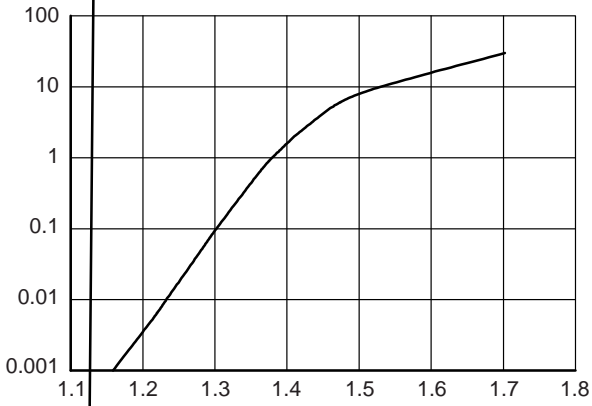
FODM452, FODM453





# FODM452, FODM453

## TYPICAL PERFORMANCE CURVES



10  
1  
0.1

0 2 4 6 8 10 14 16

1 2 3 4 5 6 7 8 9 10

# FODM452, FODM453

## TYPICAL PERFORMANCE CURVES (Continued)

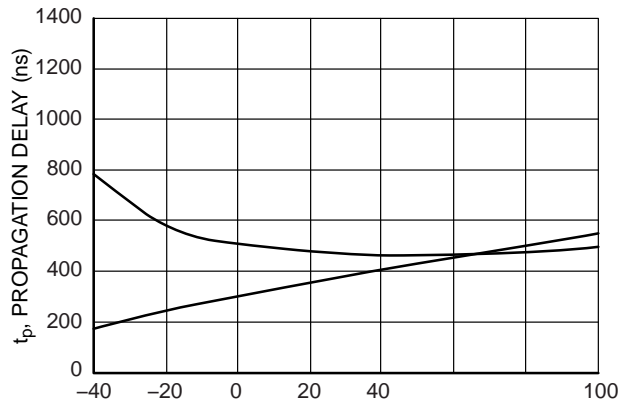
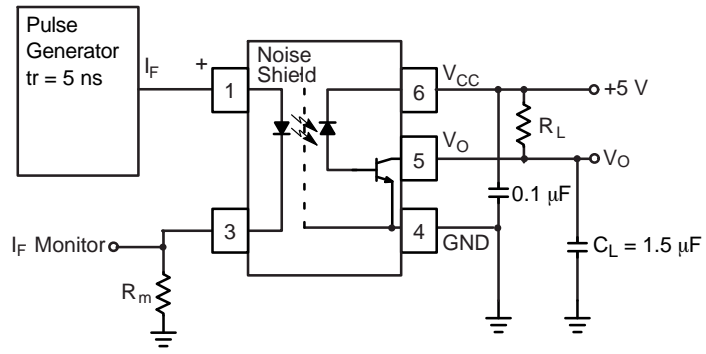


Figure 7. Propagation Delay vs. Ambient Temperature

Figure 8. Frequency Response

# FODM452, FODM453



**FODM452, FODM453**



REFLOW PROFILE

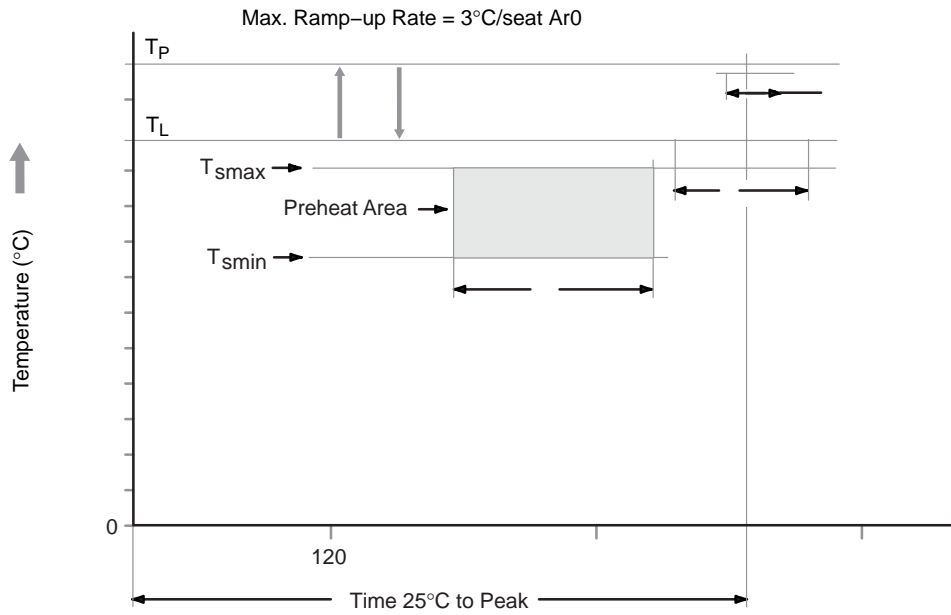


Figure 12. Reflow Profile

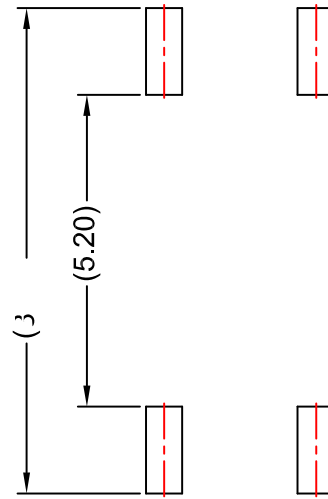
## FODM452, FODM453

### ORDERING INFORMATION

Part Number	Package	Shipping†
FODM452	MFP5 4.1X4.4, 2.54P (Pb-Free)	100 Units / Tube
FODM452R2	MFP5 4.1X4.4, 2.54P (Pb-Free)	2500 / Tape & Reel
FODM452V	MFP5 4.1X4.4, 2.54P IEC60747-5-2 (Pb-Free)	100 Units / Tube
FODM452R2V	MFP5 4.1X4.4, 2.54P IEC60747-5-2 (Pb-Free)	2500 / Tape & Reel
FODM453	MFP5 4.1X4.4, 2.54P (Pb-Free)	100 Units / Tube
FODM453R2	MFP5 4.1X4.4, 2.54P (Pb-Free)	2500 / Tape & Reel
FODM453V	MFP5 4.1X4.4, 2.54P IEC60747-5-2 (Pb-Free)	100 Units / Tube
FODM453R2V	MFP5 4.1X4.4, 2.54P IEC60747-5-2 (Pb-Free)	2500 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

MFP5 4.1X4.4, 2.54P



LASH, AND TIE BAR EXTRUSION

**onsemi**, **onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at [www.onsemi.com/site/pdf/Patent-Marking.pdf](http://www.onsemi.com/site/pdf/Patent-Marking.pdf). **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi**

---

---