







<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
<b>INPUT</b>							
Reverse current	$V_R = 6\text{ V}$		$I_R$			10	$\mu\text{A}$
Forward voltage	$I_F = 30\text{ mA}$		$V_F$		1.2	1.5	V
<b>OUTPUT</b>							
Leakage with LED off, either direction	$V_{DRM} = 600\text{ V}$		$I_{DRM}$		10	500	nA
Critical rate of rise off-state voltage	$V_D = 400\text{ V}$		$dV/dt_{cr}$	1500	2000		V/ $\mu\text{s}$
<b>COUPLER</b>							
LED trigger current, current required to latch output		VO3053	$I_{FT}$			5	mA
		VO3052	$I_{FT}$			10	mA
Peak on-state voltage, either direction	$I_{TM} = 100\text{ mA peak}$ , $I_F = \text{rated } I_{FT}$		$V_{TM}$		1.7	3	V
Holding current, either direction			$I_H$		200		$\mu\text{A}$
Coupling capacitance	10 KHz		$C_{IO}$		0.4		pF

**Note**

- Typical values are characteristics of the device and are the result of engineering evaluations. Typical values are for information only and are not part of the testing requirements.

<b>SAFETY AND INSULATION RATINGS</b>						
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Climatic classification (according to IEC 68 part 1)			55/100/21			
Pollution degree (DIN VDE 0109)			2			
Comparative tracking index	CTI	175				
Peak transient overvoltage	$V_{IOTM}$	8000			$V_{peak}$	
Peak working insulation voltage	$V_{IORM}$	890			$V_{peak}$	
Isolation resistance at $T_{amb} = 100\text{ }^{\circ}\text{C}$ , $V_{DC} = 500\text{ V}$	$R_{IO}$	$10^{11}$			$\Omega$	
Isolation resistance at $T_{amb} = 25\text{ }^{\circ}\text{C}$ , $V_{DC} = 500\text{ V}$	$R_{IO}$	$10^{12}$			$\Omega$	
Partial discharge test voltage (method a, $V_{pd} = V_{IORM} \times 1.875$ )	$V_{pd}$	1669			$V_{peak}$	
Safety rating - power	$P_{SO}$			500	mW	
Safety rating - input current	$I_{SI}$			250	mA	
Safety rating - temperature	$T_{SI}$			175	$^{\circ}\text{C}$	
Clearance distance (Standard DIP-6)		7			mm	
Creepage distance (Standard DIP-6)		7			mm	
Clearance distance (400 mil DIP-6)		8			mm	
Creepage distance (400 mil DIP-6)		8			mm	

**Note**

- According to DIN EN60747-5-5 (see figure 4). This optocoupler is suitable for safe electrical isolation only within the safety ratings. Compliance with the safety ratings shall be ensured by means of suitable protective circuits.

**TYPICAL CHARACTERISTICS** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified)

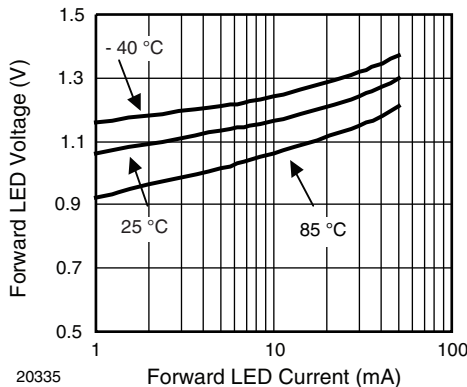


Fig. 1 - Forward Voltage vs. Forward Current



Fig. 2 - Off-State Leakage Current vs. Temperature

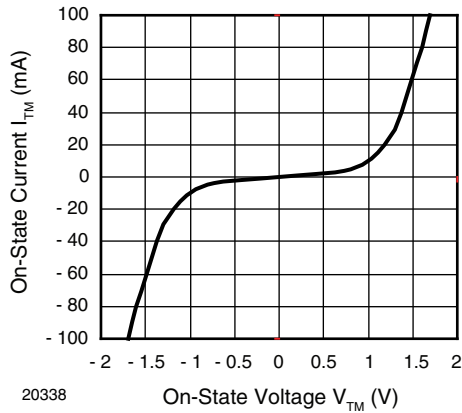


Fig. 3 - On-State Current vs.  $V_{TM}$

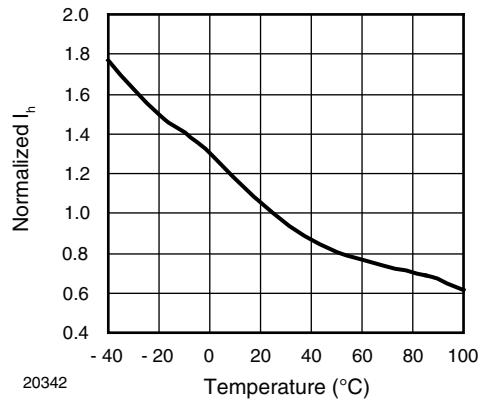


Fig. 6 - Normalized Holding Current vs. Temperature

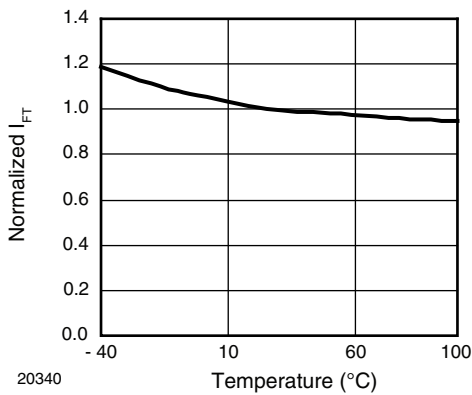


Fig. 4 - Normalized Trigger Current vs. Temperature

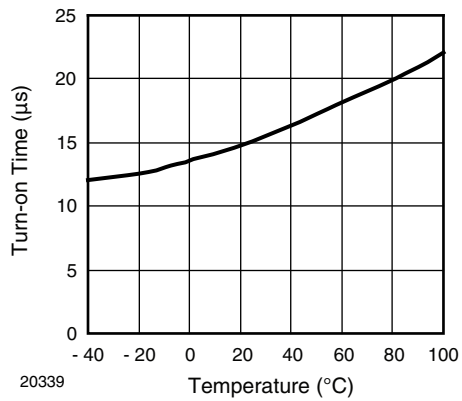


Fig. 7 - Turn-on Time vs. Temperature

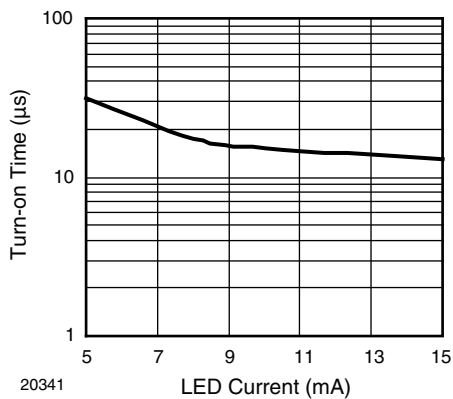
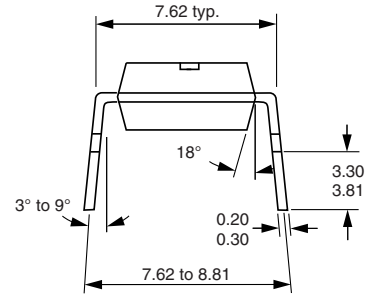
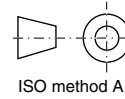
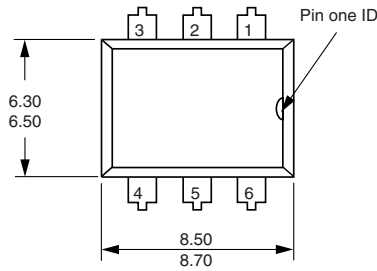


Fig. 5 - Turn-on Time vs. LED Current



Fig. 8 - Trigger Current vs. Pulse Width

**PACKAGE DIMENSIONS** in millimeters

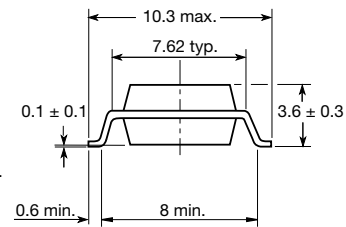


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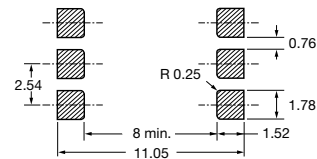
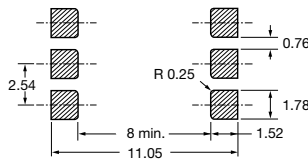
**Option 6**

**Option 7**

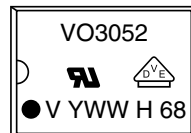
**Option 9**



20802-24



**PACKAGE MARKING**



**Notes**

- The VDE logo is only marked on option1 parts.
- Tape and reel suffix (T) is not part of the package marking.



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