SINSEM.

H11F1M, H11F2M, H11F3M

SAFETY AND INSULATION RATINGS

(As per DIN EN/IEC 60747–5–5, 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.)

| Parameter | | Characteristics | | |
|--|--|-----------------|--|--|
| Installation Classifications per DIN VDE 0110/1.89 Table 1 | n Classifications per DIN VDE 0110/1.89 Table 1 < 150 Vrms | | | |
| | < 300 Vrms | I–IV | | |
| Climatic Classification | | 55/100/21 | | |
| Pollution Degree (DIN VDE 0110/1.89) | | 2 | | |
| Comparative Tracking Index | | 175 | | |

| Symbol | Parameter | Value | Unit |
|-----------------------|---|------------------|-------------------|
| V _{PR} | Input to Output Test Voltage, Method A, $V_{IORM} \times 1.6 = V_{PR}$, Type and Sample Test with $t_m = 10$ s, Partial Discharge < 5 pC | 1360 | V _{peak} |
| | Input to Output Test Voltage, Method B, $V_{IORM} \times 1.875 = V_{PR}$, 100% Production Test with $t_m = 1 \text{ s}$, Partial Discharge < 5 pC | 1594 | V _{peak} |
| VIORM | Maximum Working Insulation Voltage | 850 | V _{peak} |
| V _{IOTM} | Highest Allowable Over Voltage | 6,000 | V _{peak} |
| | External Creepage | 7 | mm |
| | External Clearance | 7 | mm |
| | External Clearance (for Option TV, 0.4' Lead Spacing) | 10 | mm |
| DTI | Distance Through Insulation (Insulation Thickness) | 0.5 | mm |
| Τ _S | Case Temperature (Note 1) | 175 | °C |
| I _{S,INPUT} | Input Current (Note 1) | 350 | mA |
| P _{S,OUTPUT} | Output Power (Note 1) | 800 | mW |
| R _{IO} | Insulation Resistance at Ts, V_{IO} = 500 V (Note 1) | >10 ⁹ | Ω |

1. Safety limit values - maximum values allowed in the event of a failure.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^{\circ}C$ unless otherwise specified)

| Symbol | Parameter | Value | Unit | | |
|------------------|-------------------------|--------------------|------|--|--|
| TOTAL DEVICE | | | | | |
| T _{STG} | Storage Temperature | -40 to +125 | °C | | |
| T _{OPR} | Operating Temperature | -40 to +100 | °C | | |
| T _{SOL} | Lead Solder Temperature | 260 for 10 seconds | °C | | |
| EMITTER | | | | | |
| | | | | | |

| ١ _F | Continuous Forward Current | 60 | mA | |
|----------------|---|-------------------------|---------------|------------------|
| V _R | - RE"er7 r52.189 2able Ov8 79.2 236.6363 Tm(V)Tj659.754 232.2jET.14 .343 ref507. | 495401 292.423TouS.7496 | 6 250.9796 Tn | n0 Tcg59.717.sfl |

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ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

INDIVIDUAL COMPONENT CHARACTERISTICS

| Symbol | Parameter | Test Conditions | Min | Тур* | Max | Unit |
|-----------------|-------------------------|------------------------|-----|------|------|------|
| EMITTER | | | | | | |
| V _F | Input Forward Voltage | l _F = 16 mA | - | 1.3 | 1.75 | V |
| I _R | Reverse Leakage Current | V _R = 5 V | - | - | 10 | μΑ |
| CJ | Capacitance | V = 0 V, f = 1.0 MHz | _ | 50 | _ | pF |
| OUTPUT DETECTOR | | | | | | |

 $\begin{array}{|c|c|c|c|c|} BV_{4-6} & Breakdown \ Voltage \\ Either \ Polarity \\ \end{array} \begin{array}{|c|c|c|} H11F1M, & I_{4-6} = 10 \ \mu \\ H11F2M \end{array} \end{array}$

H11F1M, H11F2M, H11F3M

TYPICAL APPLICATIONS

As a Variable Resistor



LOW FREQUENCY Dynamic Range 70 db For $0 \le I_F \le 30$ mA



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SE

b

PDIP6 8.51x6.35, 2.54P CASE 646BY ISSUE A

DATE 15 JUL 2019



TOP VIEW



ALL DIMENSIONS ARE IN MILLIMETERS. C) DIM∎

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