



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	< 150 Vrms	I-IV
	< 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} × 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} × 1.875 = V _{PR} , 100% Production Test with t _m = 1 s, Partial Discharge < 5 pC	1594	V _{peak}
V _{IORM}	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
T _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 T _S , 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°C unless otherwise specified)

Symbol	Parameter	Value	Unit
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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

I _F	Continuous Forward Current	60	mA
V _R	Reverse Voltage	5	V

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

INDIVIDUAL COMPONENT CHARACTERISTICS

Symbol	Parameter	Test Conditions	Min	Typ*	Max	Unit
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EMITTER

V_F	Input Forward Voltage	$I_F = 16 \text{ mA}$	–	1.3	1.75	V
I_R	Reverse Leakage Current	$V_R = 5 \text{ V}$	–	–	10	μA
C_J	Capacitance	$V = 0 \text{ V}, f = 1.0 \text{ MHz}$	–	50	–	pF

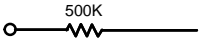
OUTPUT DETECTOR

BV_{4-6}	Breakdown Voltage Either Polarity	H11F1M, H11F2M	$I_{4-6} = 10 \mu$			
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TYPICAL APPLICATIONS

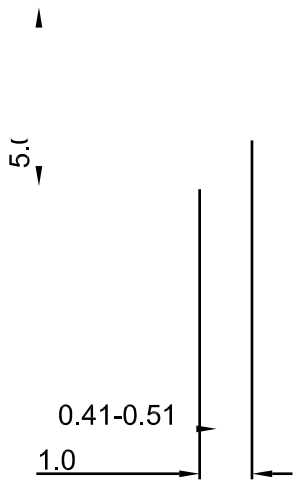
As a Variable Resistor



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

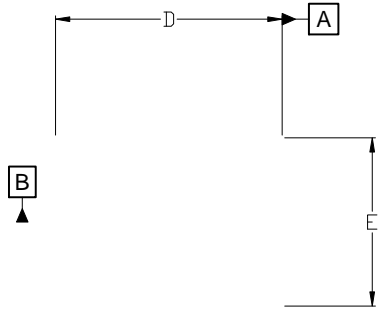


SE

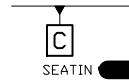


PDIP6 8.51x6.35, 2.54P
CASE 646BY
ISSUE A

DATE 15 JUL 2019



TOP VIEW



ALL DIMENSIONS ARE IN MILLIMETERS.
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