H11G0F Series

Rev.A.1.0

DESCRIPTION:

The products are 5-pin solid-state relay opto-couplers. The device combines an AlGaAs infrared emitting diode as the emitter which is optically coupled to a monolithic silicon zero-crossing photo triac to drive a power triac in a plastic DIP5 package with different lead forming options. The products are widely used in solenoid/valve controls, lighting controls, motor controls, temperature controls, static AC power switches, solid state relays, interfacing microprocessors to 265 V_{AC} peripherals.

MAIN FEATURES:

High isolation 5000 Vrms
DC input with triac output
Operating temperature range - 40°C to 110 °C
REACH & RoHS compliance
HBM: H3B; MM: M4; CDM: C3
CQC approved
VDE approved
UL approved

ABSOLUTE MAXIMUM RATINGS (Temperature=25°C)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	50	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	75	mW
Output	Repetitive peak off-state voltage	V_{DRM}	600	V
	Repetitive peak reverse voltage	V_{RRM}	600	V
	Critical rate of rise of on-state current	dI/dt	100	A/μs
	On-state RMS Current (T_a≤80	$I_{T(RMS)}$	0.3	A
	[redacted]etitive surge peak on			

Operating Temperature	T_{opr}	-40~110	
Junction Temperature	T_j	125	
Storage Temperature	T_{stg}	-40~125	
Soldering Temperature	T_{sol}	260	
Peak pulse voltage (T_j=25 ; non-repetitive,off-state)	V_{pp}	3	kV

NOTE1: 100μs pulse, 100Hz frequency

NOTE2: AC for 1minute, R.H.=40~60%

ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit

Peak Off-state

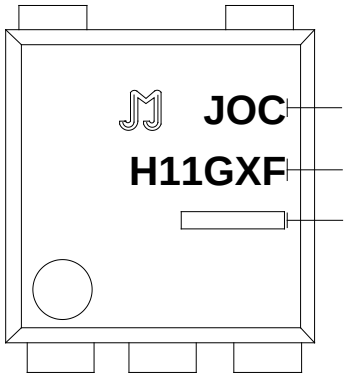
- - Current, Either

± V 1 a r r

Output

ORDERING AND MARKING INFORMATION

MARKING INFORMATION



: Company Abbr.
: Part Number & Rank
: Production Information Code

Packing Quantity

Option	Quantity	Quantity – Inner box	Quantity –Outer box
DIP	60 Units/Tube	40 Tubes/Inner box	5 Inner box/Outer box =12k Units
SMD	1200 Units/Reel	2 Reels/Inner box	5 Inner box/Outer box =12k Units

FIG.7: On-state characteristics

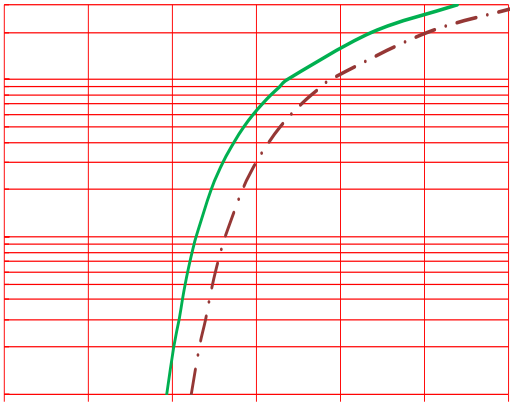


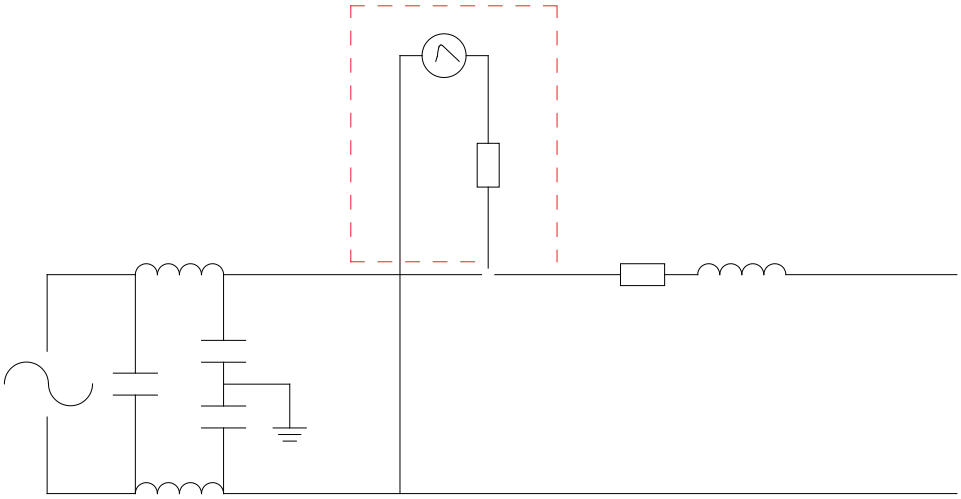
FIG.8: Normalized Holding Current vs. Ambient Temperature

TEST CIRCUITS

FIG.11: Test Circuits of Turn On Time

FIG.12: Waveforms of Turn On Time

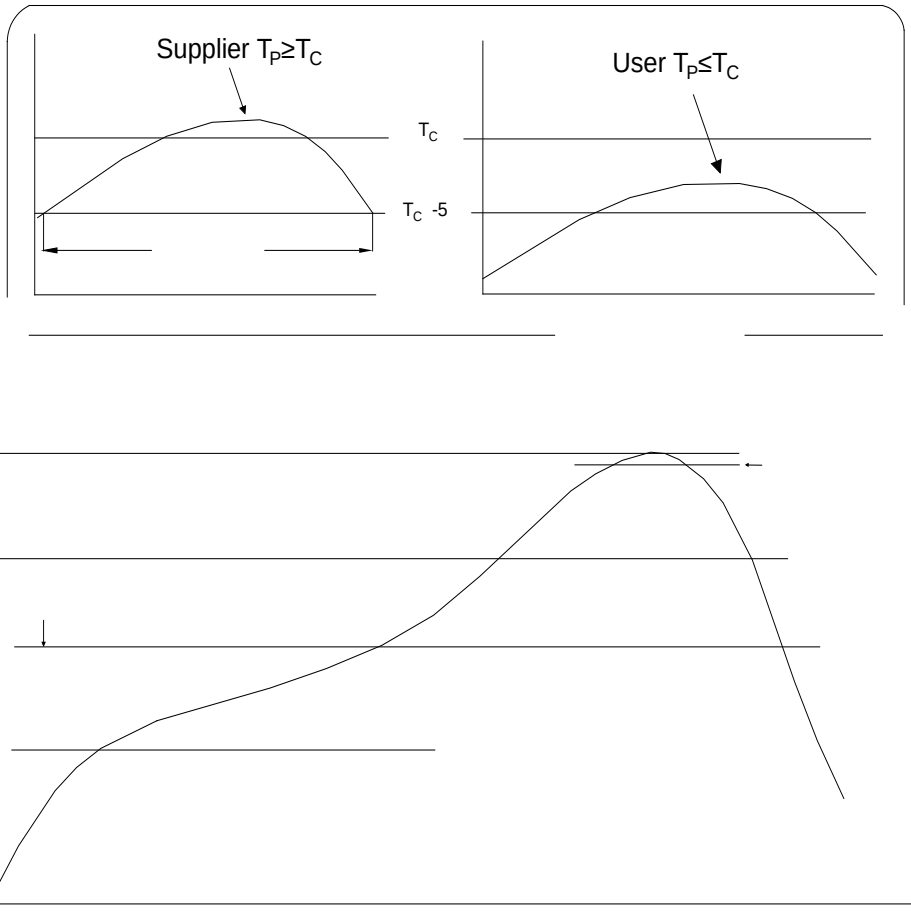
FIG.13: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



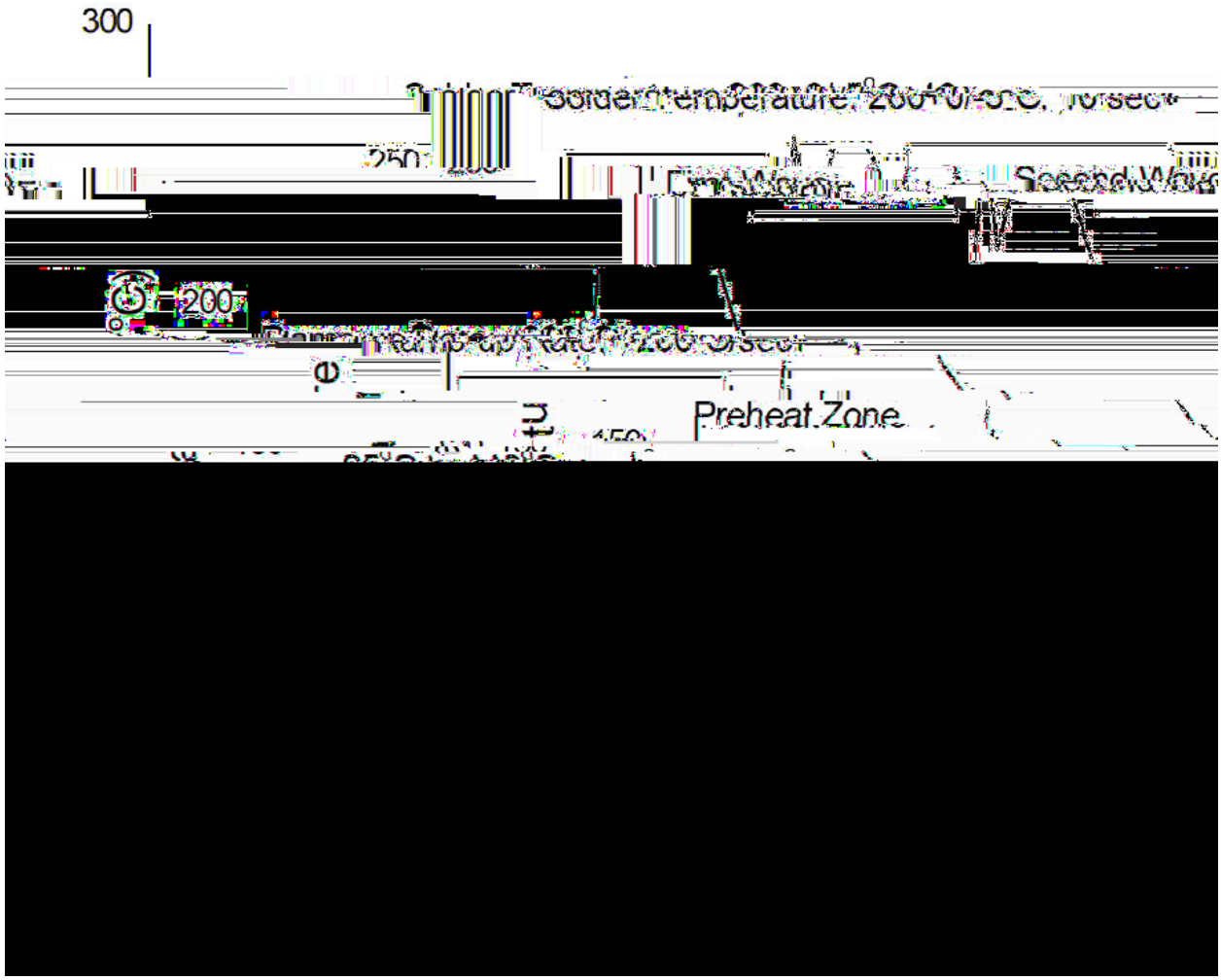
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REFLOW INFORMATION



WAVE SOLDERING



HAND SOLDERING BY SOLDERING IRON	
Soldering Temperature	360 ± 5
Soldering Time	3s max.

Note:

1. Reflow soldering is recommended at the temperatures and times shown, TT1 1 Tf 0.Td [(ot)6.3CID 1 >>BDC 0