

NEC

8 PIN DIP TYPE PS7122-2B OPTO-COUPLED SOLID STATE RELAY PS7122L-2B

FEATURES

- CONTAINS NORMALLY CLOSE OUTPUT (MOSFET)
- DESIGNED FOR AC/DC SWITCHING LINE CHANGER
- DUAL CHANNEL 8 PIN DIP PACKAGE

DESCRIPTION

PS7122-2B and PS7122L-2B are solid state relays containing a GaAs LED on the light emitting side (input side) and MOSFETs on the output side. They are suitable for analog signal control because of their low offset and high linearity.

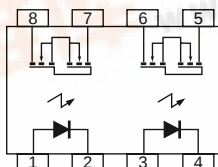
APPLICATIONS

- VOICE TELEPHONY
- X-CHANGER
- PBX

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

PART NUMBER				PS7122-2B, PS7122L-2B			
SYMBOLS		PARAMETERS		UNITS	MIN	TYP	MAX
Diode	V _F	Forward Voltage, I _F = 10 mA		V		1.2	1.5
	I _R	Reverse Current, V _R = 5 V			μA		0 5
MOS FET	R _{ON}	On-stage Resistance, I _L = 10 mA		Ω		6	8
	I _{LOFF}	Off-stage Leak Current, I _F = 10 mA, V _L = 250 V		μA		0.03	1
Coupler	t _{ON}	Turn-on Time	I _F = 10 mA V _L = 5 V	ms		0.03	0.2
	t _{OFF}	Turn-off Time	R _L = 0.5 kΩ	ms		0.40	1.5
	R _{I-O}	Isolation Resistance, V _{I-o} = 1.0 kV		Ω	10 ⁹		
	C _{I-O}	Isolation Capacitance, V = 0 V, f = 1 MHz		pF/ch		1.1	

PS7122-2B, PS7122L-2B



PS7122-2B, PS7122L-2B

ABSOLUTE MAXIMUM RATINGS¹ (T_A = 25°C)

SYMBOLS	PARAMETERS	UNITS	RATINGS	
			PS7122-2B	PS7122L-2B
Diode				
I _F	Forward Current (DC)	mA	50	50
V _R	Reverse Voltage	V	5	5
P _D	Power Dissipation	mW/ch	50	50
I _{FP}	Peak Forward Current (P _W = 100 μs, Duty Cycle = 1%)	A	1	1
MOSFET				
V _{BOUT}	Break Down Voltage	V	250	250
I _L	Continuous Load Current	mA	200	200
P _{OUT}	Power Dissipation	mW/ch	375	375
Coupled				
BV	Isolation Voltage ²	V	1500	1500
P _T	Total Power Dissipation	mW	850	850
T _{OP}	Operating Temperature	°C	-40 to 80	-40 to 80
T _{STG}	Storage Temperature	°C	-40 to 100	-40 to 100

Notes:

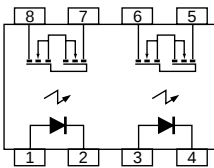
- 1. Operation in excess of any one of these parameters may result in permanent damage.
- 2. AC voltage for 1 minute at T_A = 25 °C, RH = 60 % between input and ouput.

RECOMMENDED OPERATING CONDITIONS (T_A = 25°C)

PART NUMBER		PS7122-2B,PS7122L-2B			
SYMBOLS	PARAMETERS	UNITS	MIN	TYP	MAX
I _F	LED Operating Current	mA	2	10	20
V _F	LED Off Voltage	V	0		0.5

PIN CONNECTION (Top View)

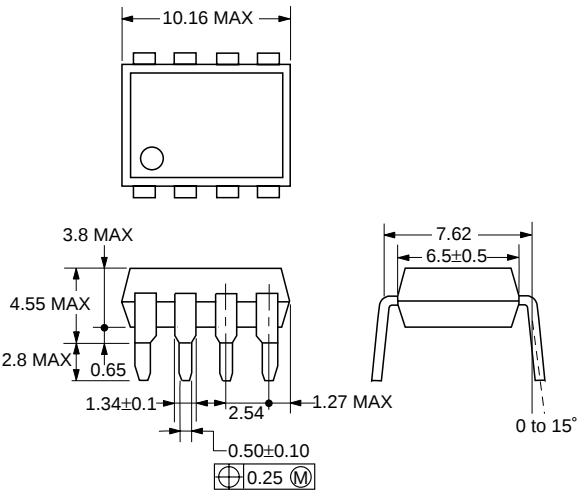
PS7122-2B, PS7122L-2B



- 1. LED Anode
- 2. LED Cathode
- 3. LED Anode
- 4. LED Cathode
- 5. MOSFET (N.C.)
- 6. MOSFET (N.C.)
- 7. MOSFET (N.C.)
- 8. MOSFET (N.C.)

OUTLINE DIMENSIONS (Units in mm)

PS7122-2B



PS7122L-2B

