

NEC

Safety Standard Certificate for Photocoupler

PS253x, PS263x



● UL Certificate

Standard
File No.

UL1577
E72422 (S) Vol.1 Sec.11

Microwave and Optical Devices Department
Semiconductor Solution Engineering Division
NEC Corporation

July 30, 1999

D E S C R I P T I O NPRODUCT COVERED:

* Component - Optical Isolators, Types: 2532, 2533, 2534, 2535 may be followed by L, L1, L2 and/or -1, -2, -3, -4; may have a prefix of "PS"; PS2633, PS2634, may be followed by L, L1, L2.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE USE):

These devices are optically coupled isolating switches with gallium arsenide light emitting diodes optically coupled to photo detectors. The solid state portion of these devices is encapsulated in a silicon or epoxy compound. The light emitting diode and detector are separated by an insulating window. Internal "chips" are provided with terminals molded into the enclosure.

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - Each device shall be reviewed with respect to the following conditions of acceptability:

1. The short circuit interrupting capacity, or behavior under short circuit conditions, has not been evaluated for these devices. Accordingly, the end-use circuit should contain suitable impedance to eliminate the need for such testing, or appropriate tests should be conducted.
2. The device shall be installed in compliance with the enclosure, mounting, spacings, and segregation requirements of the ultimate application. No spacings are specified for the device.

3. The electrical and outer surface temperature or operating temperature ratings recorded below shall be acceptable in the ultimate application.
4. The suitability of use when exposed to oil, chemicals and the like has not been determined by this investigation.
5. If a particular end-use application requires evaluation of "as received" case material properties not contemplated under the scope of this investigation, such properties will have to be separately investigated. (For application data, see ILLS.)
6. The suitability of the connections shall be determined in the end-use application.
7. The capability of the device to control a load has not been investigated.
8. The suitability of the device to be mounted over dead metal or metal of opposite polarity has not been investigated.

RATINGS:

Type Designation	Current, mA		Power, mW		Isolation Voltage (ac)	Operating Temperature 0C
	Diode	Detector	Diode	Detector		
PS2532-1	80	150	150	200	5,000	0 to 100
PS2532-2, -3, -4	80	120	150	160	5,000	0 to 100
PS2533-1	80	150	150	200	5,000	0 to 100
PS2533	80	150	150	200	5,000	0 to 100
PS2533-2, -3, -4	80	120	150	160	5,000	0 to 100
PS2633	80	150	150	300	5,000	0 to 100
PS2634	80	150	150	300	5,000	0 to 100
*PS2534-1	50	100	70	200	5,000	0 to 100
*PS2534-2,-4	50	100	55	160	5,000	0 to 100
*PS2535-1	50	100	70	200	5,000	0 to 100
*PS2535-2,-4	50	100	55	160	5,000	0 to 100

CONSTRUCTION DETAILS:

General - The general design, shape and arrangement shall be as illustrated in the following photograph and descriptive pages. All dimensions are approximate.

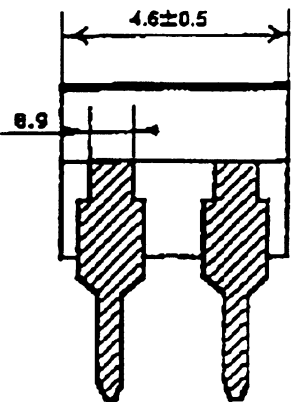
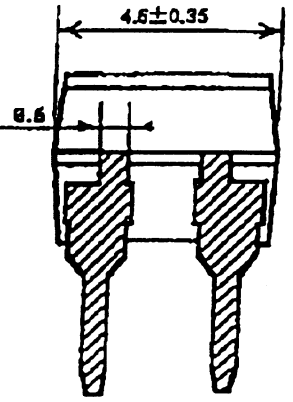
Marking - Recognized company name and type designation provided on each unit. See Section General, Marking for details.

Specification Sheet - Specification sheet is provided and contains the following information:

1. Maximum continuous power, a current and a voltage rating for both the photo-emitter and the photo-sensor.
2. A dielectric insulation-voltage rating between input and output terminals. This should be the same as the isolation VAC in ratings above.
3. The maximum operating temperature as specified in above ratings.
4. Derating specification related to ambient temperatures.

Model Differences - All models have identical insulation systems as noted in the body of the Report. The suffixes -1, -2, -3 and -4 represent the number of circuits in the package. "L1" or "L2" different. Prefix "PS" represents type of package. The "PS" and "-1" marking may not be provided on the single circuit packages due to size limitations. L, L1, L2 represent lead bending variations.

fig.1 PS2532-1 series optocoupler package outline

	① old type package	② new type package
package		
Marking	