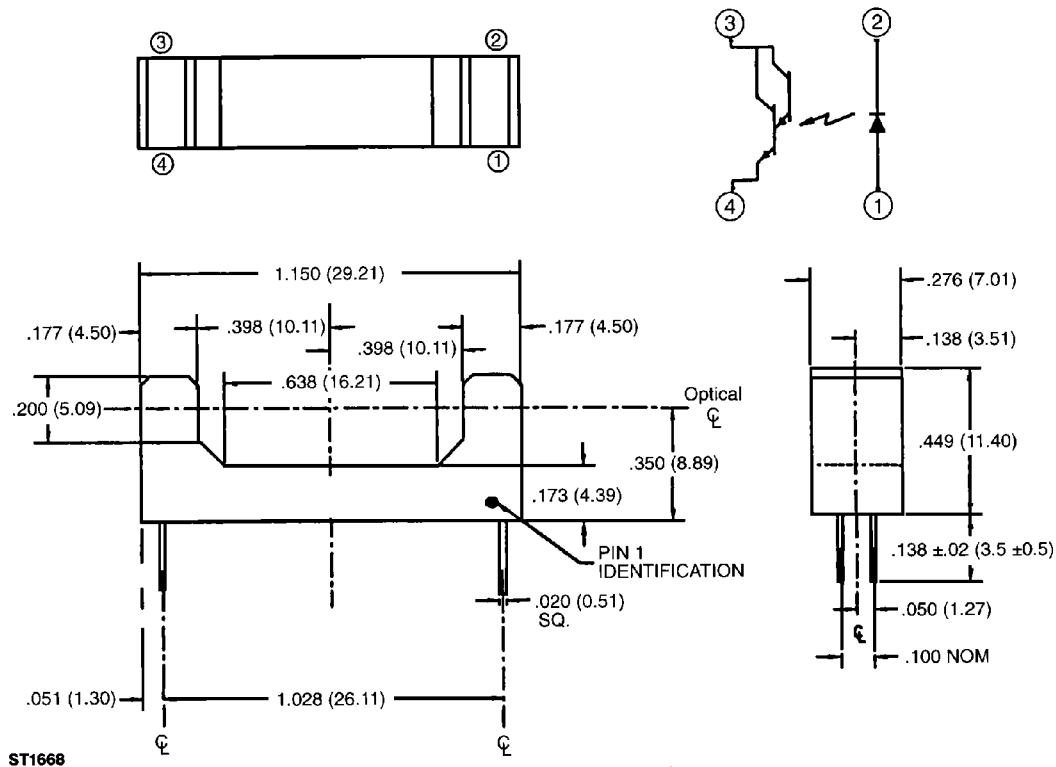


SLOTTED OPTICAL SWITCH

QVL25335

PACKAGE DIMENSIONS



- NOTES:
1. DIMENSIONS ARE IN INCHES [mm].
2. TOLERANCE IS $\pm .010$
UNLESS OTHERWISE SPECIFIED.

DESCRIPTION

The QVL25335 consists of an infrared light emitting diode coupled to an NPN silicon photodarlington packaged into an injection molded housing.

FEATURE

- 20 mm wide gap
- PC Board mount
- .060" apertures
- Sensor filter to attenuate visible light
- High CTR



SLOTTED OPTICAL SWITCH

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)

Storage Temperature	-40°C to $+85^\circ\text{C}$
Operating Temperature	-40°C to $+85^\circ\text{C}$
Soldering:	
Lead Temperature (Iron)	240°C for 5 sec. ^(2,3,4)
Lead Temperature (Flow)	260°C for 10 sec. ^(2,3)

INPUT DIODE

Continuous Forward Current	50 mA
Reverse Voltage	5 Volts
Power Dissipation	100 mW ⁽¹⁾

OUTPUT DARLINGTON

Collector-Emitter Voltage	30 V
Emitter-Collector Voltage	5 V
Power Dissipation	100 mW ⁽¹⁾

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
INPUT DIODE						
Forward Voltage	V_F	—	—	1.70	V	$I_F = 20\text{ mA}$
Reverse Leakage Current	I_R	—	—	100	μA	$V_R = 5\text{ V}$
OUTPUT DARLINGTON						
Breakdown Voltage Collector-Emitter	BV_{CEO}	30	—	—	V	$I_C = 1\text{ mA}$
Breakdown Voltage Emitter-Collector	BV_{ECO}	5	—	—	V	$I_E = 100\text{ }\mu\text{A}$
Collector-Emitter Leakage	I_{CEO}	—	—	100	nA	$V_{CE} = 10\text{ V}$
COUPLED						
On-State Collector Current	$I_{C(ON)}$	5.0	—	—	mA	$I_F = 10\text{ mA}, V_{CC} = 5\text{ V}$
Voltage Saturation	$V_{CE(SAT)}$	—	—	1.0	V	$I_F = 10\text{ mA}, I_C = 2\text{ mA}$

NOTES

1. Derate power dissipation linearly, on each component, 1.67 mW/ $^\circ\text{C}$ above 25°C .
2. RMA flux is recommended.
3. Methanol or Isopropanol alcohols are recommended as cleaning agents.
4. Soldering iron tip $\frac{1}{16}$ " (1.6 mm) from housing.