



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

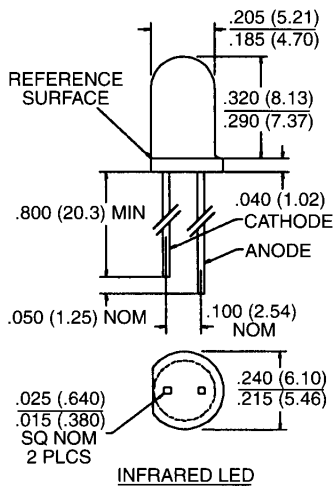
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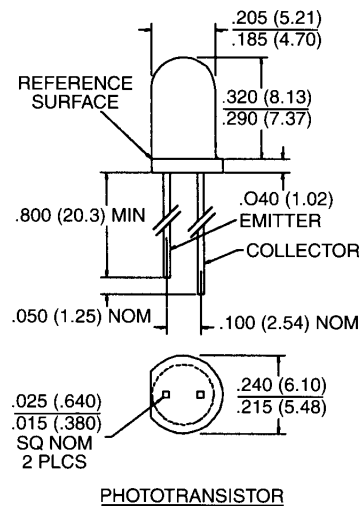
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PACKAGE DIMENSIONS



ST2169



ST2169

NOTES:
1. DIMENSIONS ARE IN INCHES (mm).
2. TOLERANCE IS ±.010 (.25)
UNLESS OTHERWISE SPECIFIED.

DESCRIPTION

The QPD1223 consists of an 880 nm AlGaAs LED and a silicon phototransistor mounted in plastic T-1³/₄ packages.

FEATURE

- Steel lead frames for improved reliability in solder mounting.
- Good optical-to-mechanical alignment.
- Narrow emission/reception angle.
- Black plastic body allows easy recognition of sensor.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)	
Storage Temperature	-40°C to + 100°C
Operating Temperature	-40°C to + 100°C
Soldering:	
Lead Temperature (Iron)	240°C for 5 sec. ^(2,3,5)
Lead Temperature (Flow)	260°C for 10 sec. ^(2,5)
INPUT DIODE	
Continuous Forward Current	100 mA
Reverse Voltage	5.0 Volts
Power Dissipation	200 mW ⁽¹⁾
OUTPUT TRANSISTOR	
Collector-Emitter Voltage	30 Volts
Emitter-Collector Voltage	5.0 Volts
Power Dissipation	100 mW ⁽¹⁾

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified) (All measurements made under pulse conditions.)						
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	$V_R = 5.0\text{ V}$
OUTPUT TRANSISTOR						
Collector-Emitter Breakdown	BV_{CE0}	30		—	V	$I_f = 1.0\text{ mA}$, $E_e = 0$
Collector-Emitter Leakage	I_{CE0}	—		100	nA	$V_{CE} = 10.0\text{ V}$, $E_e = 0$
COUPLED						
On-State Collector Current						
QPD1223	$I_{C(ON)}$	10.0		—	mA	$I_f = 20\text{ mA}$, $V_{CC} = 5.0\text{ V}$, $D = .250^{(4)}$

NOTES
1. Derate power dissipation linearly 2.67 mW/°C above 25°C for LED and 1.33 mW/°C for sensor.
2. RMA flux is recommended.
3. Soldering iron tip 1/16" (1.6mm) minimum from case.
4. D is the distance from lens tip to lens tip.
5. As long as leads are not under any stress or spring tension.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified)	
Storage Temperature	-40°C to + 100°C
Operating Temperature	-40°C to + 100°C
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Reverse Voltage	5.0 Volts
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PLASTIC T-1^{3/4} PAIR

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