PC827 H

Dual Optocoupler

Electrically Tested to PC827 Generic Specifications

Features

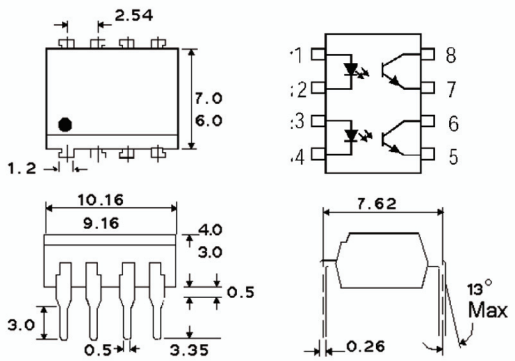
- 2-channel
- Current transfer ratio (CTR: Minimum 50% at I_F = 5mA, V_{CE} = 5V)
- High isolation voltage input to output (V_{iso}: 5,000V_{RMS})
- UL Approved
- RoHS Compliant

Applications

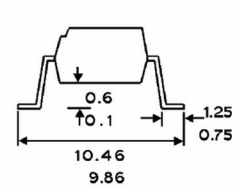
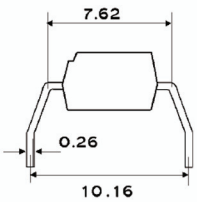
- Computer terminals
- Appliances
- Digital I/O
- Instrumentation
- Signal transmission

Outline Dimensions (Units: mm)

PC827 H



Lead Forming Options

Option S Surface Mount	**Option F** Wide Lead Spacing
	

Ordering Information

Part No.	DIL Package Style	Pack Size
PC827 H	Standard	100 per tube
PC827 HF	Wide lead spacing	100 per tube
PC827 HS	Surface mount lead-form	100 per tube
PC827 HSTR	Surface mount lead-form	1000 per reel

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Absolute Maximum Ratings (Ta=25°C)

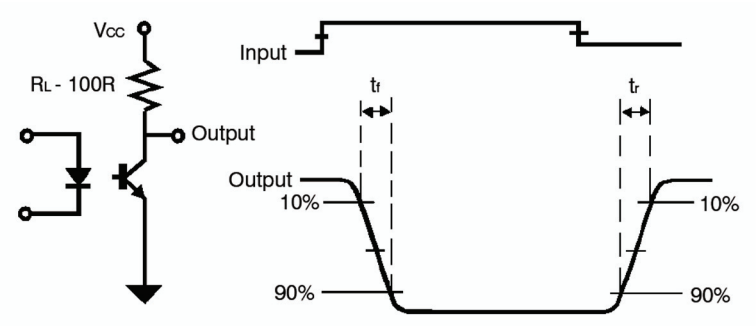
Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Power dissipation	P	70	mW
Output	Collector-emitter voltage	BV_{CEO}	35	V
	Emitter-collector voltage	BV_{ECO}	6	V
	Collector current	I_C	50	mA
	Collector power dissipation	P_C	150	mW
Total power dissipation*1		P_{tot}	200	mW
Isolation voltage*2		V_{iso}	5,000	V_{RMS}
Operating temperature		T_{opr}	-30 to +100	°C
Storage temperature		T_{stg}	-55 to +155	°C
Soldering temperature*3		T_{sol}	260	°C

*1 Derate linearly 2.67mW/°C above 25°C
*2 40 to 60% RH, AC for 1 minute
*3 For 10 seconds. Suitable for Lead-free IR reflow soldering

Electro-optical Characteristics (Ta=25°C)

Parameter			Symbol	Test Conditions	MIN	TYP	MAX.	Unit
Input	Forward voltage		V_F	I_F = 20mA	-	1.2	1.4	V
	Reverse current		I_R	V_R = 6V	-	-	10	μA
Output	Collector dark current		I_{CEO}	V_{CE} = 20V, I_F = 1mA, I_F = 0	-	-	100	nA
Transfer Characteristics	Current transfer ratio		CTR	I_F = 5mA, V_{CE} = 5V	50	-	600	%
	Collector-emitter saturation voltage		$V_{CE(sat)}$	I_F = 20mA, I_C = 1mA	-	0.1	0.2	V
	Isolation resistance		R_{ISO}	DC 500V, 40 to 60% RH	$5x10^{10}$	10^{11}	-	Ω
	Floating capacitance		C_f	V = 0, f = 1MHz	-	0.6	1.0	pF
	Response time	Rise time	t_r	V_{CE} = 2V, I_C = 2mA, R_L = 100Ω	-	4	18	μs
		Fall time	t_f		-	3	18	μs

Test Circuit for Response Time



Also available in this series are: PC824 H, PC825 H, PC829 H and PC849 H